THE EFFECTS OF EVOCATIVE IMAGERY TRAINING AND RECEPTIVE IMAGERY TRAINING ON MEASURES OF CREATIVITY, IMAGERY VIVIDNESS, AND IMAGERY CONTROL IN HIGH SCHOOL STUDENTS

By

LARRY D. VAUGHT

Bachelor of Science
Oklahoma State University
Stillwater, Oklahoma
1974

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1976

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Thesis Approved:

Joseph R Pearl
Thesis Adviser

Judith E. Dobson

Norma Jo Campbell

Glenn S Bull

Paul G Ward

Thomas D Johnston

Norman N Durham
Dean of the Graduate College

PREFACE

This study is concerned with the respective effects of receptive imagery training and evocative imagery training on measures of creativity, imagery vividness, and imagery control. The imagery training methods are based on a literature review of the two imagery types, receptive and evocative. Subjects for the study were solicited from a population of senior psychology students at one midwestern high school.

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CHAPTER I

INTRODUCTION

Creativity as a topic of research has received much attention from both psychologists and educators since the 1950's (Khatena, 1978a). The enhancement of creativity has been a major focus within this creativity research (e.g., Feldhusen and Treffinger, 1971; Khatena, 1978b; and Torrance, 1972a).

The training of mental imagery is one promising method by which creativity may be enhanced. Mental imagery refers to internal representations which mimic sensory experiences in the absence of the actual sensory stimulus. Parrish (1981), Johnson (1981), and Kehoe (1978) have utilized various imagery training techniques to enhance creativity. In numerous studies, imagery indices have been positively related to creativity indices (Khatena, 1975a, 1975b, 1976a; Forisha, 1978, 1981; Rhodes, 1979).

The two major dimensions in imagery research are vividness and control. Imagery vividness refers to the relative clarity of one's imagery (Richardson, 1969). Imagery control refers to the degree to which one can exert voluntary control over the contents of his/her imagery (Lane, 1974). These dimensions are the primary

basis for the research correlating imagery and creativity indices.

The literature is consistent in suggesting a positive relationship between imagery vividness and creativity (Khatena, 1975a; Schmeidler, 1965; Rhodes, 1979). However, the relationship between imagery control and creativity is unclear. Khatena (1975b, 1976a) found more autonomous imagers, i.e., those low on imagery control obtained higher creativity scores than moderate and less autonomous imagers. In contrast, Forisha (1981) found imagery control scores to be positively correlated to creativity indices.

This disparity in the research relating imagery control and creativity has relevance in training imagery to enhance creativity. If imagery control is important in creativity, then control of imagery should be emphasized in the imagery training. On the other hand, if autonomous (uncontrolled) imagery is important in creativity, then autonomy of imagery should be an integral component in imagery training for creativity.

Another distinction made in the literature is between controlled and uncontrolled (autonomous) imagery. Controlled images are consciously and deliberately evoked (Assagioli, 1965). Controlled imagery may involve images of things already seen or it may involve building up an image which includes elements already seen but combined in a new way (Assagioli, 1965). Autonomous images passively

and spontaneously arise (Samuels and Samuels, 1975). They are not consciously contrived as with controlled imagery (Assagioli, 1965). The emergence of autonomous images is facilitated by relaxation (Leuner, 1977; Crampton, 1969; Gowan, 1978; Samuels and Samuels, 1975). This is in contrast to controlled imagery, which is facilitated by an alert, attentive focus (Rehm, Matter, Potts, Skolnick, 1974; Gale, Morris, Lucas, Richardson, 1972; Reyer and Morishige, 1969). Considering these distinctions between controlled and autonomous imagery, it is apparent that a different training method might be appropriate for each. Upon training, the effects of these two approaches can be differentially assessed. This would hopefully clarify the relative contributions of controlled and autonomous imagery in imagery training for creativity.

In this study, imagery training where controlled imagery is elicited will be referred to as evocative (Lane, 1974; Assagioli, 1965). Though there may be slight semantic differences, autonomous imagery is variously called creative imagination imagery (Khatena, 1978), hypnagogic imagery (Green and Green, 1977; Johnson, 1981; Richardson, 1969), hypnapompic imagery (Richardson, 1969), spontaneous imagery (Clark, 1973; Crampton, 1969), free imagery (Reyher, 1963), and receptive imagery (Samuels and Samuels, 1975). Receptive imagery training will be used to refer to procedures to facilitate autonomous imagery.

Statement of the Problem

It has been shown that there is a positive relationship between creativity and aspects of imagery. However, the nature of this relationship is unclear. Specifically, the research relating imagery control and creativity has been contradictory. The ambiguity regarding this relationship between imagery control and creativity has relevance for the use of imagery training to enhance creativity. The general problem examined in this investigation pertains to the respective effects of receptive imagery training and evocative imagery training on indices of creativity. Additionally, the effects of evocative imagery training and receptive imagery training on imagery vividness and imagery control will be examined to better clarify the respective effects of these imagery training methods on imagery itself.

Research Questions

The specific questions asked in this study are:

Research Question One: What are the respective effects of evocative imagery training and receptive imagery training on creativity?

Research Question Two: What are the respective effects of evocative imagery training and receptive imagery training on imagery control?

Research Question Three: What are the respective effects of evocative imagery training and receptive imagery training on imagery vividness?

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, literature relative to the relationship between imagery and creativity will be reviewed. Included in this review will be empirical support for a relationship between imagery and creativity, a description of studies where imagery training has been implemented, and a rationale for techniques utilized in evocative and receptive imagery training.

Relationship Between Imagery and Creativity

In this section, research indicating a relationship between imagery and creativity is reviewed. Anecdotally, numerous theorists and researchers have postulated a relationship between imagery and creativity (see Walkup, 1965; Durio, 1975; Arieti, 1976; Gowan, 1978). Additionally, numerous subjective accounts exist where creative insights were apparently mediated by imagery. Famous examples include Kekule and the benzene ring, Einstein and the theory of relativity, and Darwin and the theory of evolution.

Experimentally, both imagery vividness and imagery control have been studied in relation to creativity. Schmeidler (1965) investigated the relationship between imagery vividness and creativity in a correlational study. Her subjects were 307 college undergraduates. She administered the Barron Independence of Judgement Scale (Barron, 1958) as a measure of creativity. A variation of Galton's (1907) imagery questionnaire was used as a measure of imagery vividness. A significant positive correlation of .19 ($p < .001$) was obtained between the two instruments, suggesting a positive relationship between imagery vividness and creativity.

Khatena (1975a) administered the Shortened Form of the Betts' Questionnaire Upon Mental Imagery (QMI) (Sheehan, 1967), the What Kind of Person Are You? (WKOPAY) (Torrance and Khatena, 1970), and the Something About Myself (SAM) (Khatena, 1971a) to 107 undergraduate college students. The QMI consists of scales tapping imagery vividness in each of seven imagery modalities. These modalities are the visual, auditory, kinesthetic, tactile, olfactory, gustatory, and organic. WKOPAY and SAM are both checklists used to measure creative self-perception. Scores from the WKOPAY were significantly correlated with scores from the visual ($r = .20$, $p < .05$) and tactile ($r = .20$, $p < .05$) modalities of the QMI. Scores from the SAM were significantly correlated with scores from the visual

(r = .20, $p < .05$), auditory (r = .23, $p < .01$), and tactile (r = .24, $p < .01$) modalities, and the total QMI scale (r = .22, $p < .05$).

Forisha (1978) administered the QMI and the Unusual Uses subtest from the Torrance Test of Creative Thinking (TTCT) (Torrance, 1966). TTCT scores were calculated for fluency (number of responses), flexibility (number of different categories), and originality (statistical infrequency of responses). Additionally, a total creativity score, computed from the above three components, was calculated. Her subjects were 163 undergraduate college students (94 men and 69 women). The total creativity scores were significantly correlated with imagery vividness scores from the visual (r = .16, $p < .05$) and auditory (r = .18, $p < .05$) modalities. Also, the originality scores were significantly correlated with vividness scores from the visual modality (r = .17, $p < .05$) and the total QMI scale (r = .18, $p < .05$). Fluency scores were significantly correlated with vividness scores from the auditory modality (r = .20, $p < .05$).

Rhodes (1979) administered the QMI and the TTCT. In addition to TTCT scores for fluency, flexibility, and originality, scores for elaboration (number of details) were also calculated. Total creativity scores were calculated based on these four scores. His subjects were 150 sixth grade students. Significant correlations at the .05 level were obtained between scores for vividness of auditory

imagery and scores for flexibility (r = .19), originality (r = .22), elaboration (r = .20), and total creativity (r = .22). Significant correlations at the .05 level were also obtained between scores for vividness of visual imagery and scores for elaboration (r = .28) and total creativity (r = .19).

In researching the relationship between imagery control and creativity, Khatena (1975b, 1976a) has used the Gordon Test of Visual Imagery Control (Gordon) (Gordon, 1949). This test, with a twelve item yes-no format, assesses imagery control in the visual modality only. Khatena has generally interpreted a low score on the Gordon to suggest autonomy in imagery. Khatena (1975b) administered the Gordon and the creativity checklist SAM to 107 college undergraduates. Khatena categorized the students as less, moderate, and more autonomous imagers according to the Gordon. Using an analysis of variance, he found more autonomous imagers obtained significantly higher creativity scores on SAM than the less and moderately autonomous imagers. Furthermore, moderately autonomous imagers obtained significantly higher scores on SAM than less autonomous. These results were significant at the .05 level. Khatena (1976a) administered the Gordon and Onomatopoeia and Images (OI)(Khatena, 1969) as a measure of creativity to further assess the relationship between control of imagery and creativity. His subjects were 90 college

undergraduates. The students were categorized as moderately autonomous, less autonomous, and non-autonomous imagers according to the Gordon. Using an analysis of variance, Khatena found moderately autonomous imagers scored significantly higher on the OI than less autonomous and non-autonomous imagers. These results were significant at the .01 level.

Forisha (1981) administered the Gordon and the Unusual Uses subtest from the TTCT to 320 undergraduate and graduate college students (160 men and 160 women). Fluency, flexibility, and originality scores were significantly correlated at the .05 level with the Gordon. These correlations were .15, .20, and .18 for fluency, flexibility, and originality, respectively. These results suggest imagery control and creativity have a positive relationship. This is in contrast to Khatena's (1975b, 1976a) research, which suggests imagery control and creativity have a negative relationship.

Durdell and Wetherick (1976) administered the Gordon and four divergent thinking tasks. Divergent thinking is a process intrinsic to creativity (Arieti, 1976; Guilford, 1959, 1967), Their subjects were 60 college undergraduates. Subjects were divided into high and low imagery control groups based on scores from the Gordon. Analyses of variance were performed for each of the four divergent thinking tasks. Those subjects high on imagery control performed

significantly better on three of the four divergent thinking tasks. These results were significant at the .01 level. Nonsignificant results were obtained on a fourth divergent thinking task. These results further suggest imagery control and aspects of creativity may be positively related.

In summary, the literature is fairly consistent in suggesting a positive relationship between imagery vividness and creativity. In particular, the visual and auditory modalities of imagery vividness appear to be related to creativity. However, the literature relating imagery control and creativity is limited and contradictory.

Imagery Training

In this section, studies are described where imagery training has been implemented. Rehm (1974) attempted to determine if vividness of imagery could be affected by practice. His subjects were thirty college students. Each subject was asked to visualize thirty different items, the items being familiar objects such as a shoe, a bicycle, rain, or a house. The subjects were then asked to rate the image on a 13-point scale for vividness.

Rehm found that the vividness ratings increased across the entire thirty items, and the analysis of variance yielded significant practice effects for vividness ratings. This was significant at the .001 level. Rehm concluded that a practice effect exists for vividness of imagery.

Ritter (1978) attempted to determine if imagery vividness could be improved as a result of imagery training. His subjects were thirty college students. Two groups were used. One group was exposed to a nine-minute imagery training session consisting of relaxation instructions, a fantasy trip, and autogenic training. Another group was asked to think of words beginning with each letter of the alphabet in succession. Following these treatments, the Betts was administered to assess imagery vividness.

A t-test revealed that the imagery training group scored significantly better on the Betts than the word listing group. This was significant at the .05 level. Ritter concluded that imagery vividness can be increased through a brief training procedure.

Kehoe (1978) attempted to determine if an imagery curriculum was effective in enhancing vividness of imagery, control of imagery, memory of imagery, creativity, and ability to relax. His subjects were 63 emotionally handicapped secondary students. The instruments included the QMI, the Benton Revised Test of Visual Retention, Forms D and E, TTCT (Figural Form B), and the Autogenic Biological Feedback Skin Thermometer. The imagery curriculum consisted of a slide presentation which emphasized both experiential exercises and didactic information. There were ten daily sessions of two hours each. Additionally, students were asked to record any of their dreams as fully as possible

on a nightly basis. They were further instructed to attempt to relate any of the dreams to an event of the day before. A control group was utilized for which there was no treatment.

Using an analysis of variance for repeated measures. four of fourteen null hypotheses were rejected. Vividness of visual imagery, vividness of auditory imagery, memory imagery, and creative originality were significantly affected by the treatment. These were significant at the .05 level. Kehoe concluded that some aspects of imagery and creativity were positively affected by the imagery curriculum in subjects from the treatment group.

Johnson (1981) attempted to determine whether a procedure which trains individuals to become aware of, observe, and report their own hypnagogic imagery can be used by them to enhance their creativity as measured by the TTCT (Figural Form). This study utilized undergraduate-level psychology students. Two levels of hypnagogic-imagery training (training and no training) were crossed with two levels of time limit (10 and 20 minutes) for each activity of the TTCT in a randomized, posttest only 2 x 2 factorial design. Hypotheses were formulated in order to test the main and interaction effects on hypnagogic-imagery training and time limit.

A 60-minute hypnagogic-imagery training procedure was developed by Johnson. Administration of the TTCT immediately followed the training.

In the training procedure, a state of relaxation was induced in the subject followed by the initiation of the hypnagogic imaging process via verbal instructions. The subject was then asked to report his/her imagery, which was taped and then played back to the subject at this time. At this point, hypnagogic imagery was again induced, this time through the presentation of four tactile stimuli: A short piece of rope, a small female baby doll, a small toy car, and a small toy hand gun. Then the subject's verbal reports of this second set of imagery was again recorded and played back to him/her. Following a short rest period, a state of relaxation was again induced to prepare the subject to perform the dependent variable activities. This induction of a state of relaxation immediately preceded the administration of the TTCT.

The results of the 2 x 2 factorial data analysis showed the main effect of the imagery training on fluency ($p < .05$), elaboration ($p < .05$), and the Checklist of Creative Strengths was significant ($p < .01$). Also, the main effect of the time limit on fluency ($p < .05$), originality ($p < .05$), and elaboration ($p < .01$) was significant. Interaction effects between time limit and imagery training were not significant.

Johnson concluded that hypnagogic imagery can be trained and that through this training, various TTCT activities can be enhanced.

Parrish (1981) attempted to determine if preparation (imagery training) and incubation (relaxation) were effective ways of enhancing creativity as measured by the scores on the Onomatopeia and Images (Khatena, 1969). The subjects were 72 males and female volunteers who were undergraduate psychology students.

Hypotheses were formulated to determine the main and interaction effects of preparation and incubation in a randomized subjects, posttest only, 2 x 2 factorial design.

In testing for interaction effects, incubation immediately followed preparation. Incubation activities consisted of exposure to a taped 20-minute autogenic relaxation procedure. Preparation activities consisted of a 60-minute imagery-training program developed by Khatena (1980). This involved the subjects being first administered Sounds and Images (Torrance and Cunnington, 1965) to elicit an image pool. Then these images were used as raw materials in subsequent imagination-imagery activities. These imagination-imagery activities included identifying the sense modalities associated with the images in the pool, allowing the images to become autonomous, and synthesizing and restructuring the images.

The results were interpreted to suggest that preparation (imagery training) was effective in enhancing creativity, but only when not followed by incubation (relaxation). The incubation period (relaxation) was also suggested as effective in enhancing creativity, but only when not preceded by preparation (imagery training). These results were significant at the .05 level. The hypothesis that creativity is enhanced as a result of subjects receiving preparation (imagery training) followed by incubation (relaxation) was not supported. Parrish (1981) concluded that imagery training and relaxation can facilitate creativity if administered separately. The theoretical construct that preparation followed by incubation stimulates creativity was not supported.

In summary, Rehm's (1974), Ritter's (1978), and Kehoe's (1978) studies suggest imagery training can positively affect imagery vividness. In Kehoe's study, imagery control was not affected by imagery training.

Johnson's (1981), Parrish's (1981), and Kehoe's (1978) studies suggest imagery training can affect creativity. However, these studies provide no information as to the relative efficacy of evocative and receptive imagery training.

Rationale For Evocative Imagery Training

In this section, a rationale for techniques used in evocative imagery training is presented. As noted in

Chapter I, evocative imagery is consciously and deliberately evoked. One means by which the evocation of imagery can be facilitated is by the presentation of a narrative to be imaged. This has frequently been practiced by behavior therapists who narrate a desensitization hierarchy in which the patient is asked to intentionally image various feared stimuli.

Phillips (1971) discusses training of imagery to facilitate desensitization therapy. She recommends that the subject be instructed to image as though he or she were seeing, doing, smelling, feeling, hearing, etc., at the particular moment. Additionally, the imagery instructions should be couched in terms of sensory data. For example, instead of "There was a tree," the subject should be instructed, "You see a tree," which utilizes both the present tense and a sensory experience in the description. She asserts that these suggestions will more fully involve the client in the imaging process.

In terms of evocative imagery training, this greater involvement will hopefully enhance on-task imaging and prevent the spontaneous elaboration of details in the imaging process. As noted in Chapter One, evocative imagery is a distinct process which does not include spontaneous imagery, at least theoretically. Considering this factor, evocative imagery training should minimize the spontaneous elaboration of details.

In eliciting evocative imagery, Clark (1973) maintains that specificity of detail is important. He suggests that spontaneous elaboration in the imaging process will occur if specificity is not adhered to in the instructions to image.

Bull (personal communication, 1982) recommends "probes," which essentially are queries as to whether the subject is imaging the prescribed imagery. "Can you vividly see the red balloon?" or "Do you smell the roses?" are examples. Probes aid the subject in staying on task and may prevent spontaneous elaboration of images.

Pauses inserted in evocative imagery instructions may minimize fatigue and thus enhance on task imaging. In support of this, Richardson (1967) asserts that attention to imaging can be maintained optimally for only about five minutes without some sort of pause. This contention was based on a review of imagery practice as it affects a perceptual motor task (e.g., juggling). In this type of imagery training, perceptual motor tasks are typically analyzed and important movements recorded in sequence. Instructions can then be provided for subjects to image the specific movements in preparation for the actual skill. It seems this imagery training to promote perceptual motor skills is quite similar to evocative imagery, which suggests Richardson's recommendation is applicable to evocative imagery training.

The evocative imagery process appears to be facilitated by an attentive, focused attentional set as opposed to a relaxed state. This conclusion is based on research by Rehm et al. (1974), Gale et al. (1972), and Reyer and Morishige (1969).

In summary, specificity of details in the narration, couching of the narration in terms of the present tense and sensory experiences, probing to insure continued on task behavior, an attentive focus, and pauses to minimize fatigue are important factors in evocative imagery instructions.

Rationale For Receptive Imagery Training

In this section, a rationale for techniques used in receptive imagery training is presented. Several researchers have related relaxation to receptive imagery. Crampton (1969) maintains that a deep state of relaxation is desirable in facilitating receptive imagery. Leuner (1977) suggests that only a light state of relaxation is necessary in inducing receptive imagery. He further maintains this can be accomplished with very minimal training of subjects. Techniques developed by Samuels and Samuels (1975) and Lee and Pulveno (1978) for eliciting receptive imagery are very similar to each other and involve brief relaxation instructions involving breathing and progressive muscle relaxation. Breathing instructions are typically undertaken initially, with an emphasis on slow, deep breathing. Then instructions

to relax parts of the body beginning with the feet are given. Samuels and Samuels (1975) include suggestions of heaviness which is an autogenic technique proven successful in relaxation.

A technique widely utilized in receptive imagery exercises is the "mind screen" (Crampton, 1969). This technique is based on Jung's (1939, 1971) process of "active imagaintion," in which clients were asked to project images from a passive state. This typically involves the suggestion that the subject is passively watching a large screen or TV set. It emphasizes that the subject is simply to observe and not control the images he views. The mind screen provides the subject with a concrete reference on which to image. This may allow necessary structure for such a subtle and diffuse process as receptive imagery.

Richardson (1969), Green and Green (1977), and Gowan (1978) maintain that memory of receptive imagery is important if the imagery is to be utilized in the creative process. If the imagery is not consciously realized and retained, then it is not incorporated into creative thinking (Arieti, 1976). Awareness of imagery in the receptive process is sometimes vague and diffuse. Green and Green (1977) write " . . . a major problem in studying hypnagogic states is that the material experience is generally rapidly forgotten"(p. 138). They suggest that much imagery is ongoing, but is either not noticed or is quickly forgotten in a diffuse state of awareness.

If memory of imagery is important in affecting the creative process as the above researchers stipulate, then awareness of receptive imagery should be enhanced to avoid forgetting the content of the imagery. In terms of awareness, Samuels and Samuels (1975) write

> . . . all people need to do is remain in a state of interested awareness. They may find that if they look too closely the images will disappear, or if they don't pay close enough attention, they may fall asleep. (p. 96)

Richardson (1969) asserts that a sensitization occurs as one begins to attend to imagery. Green and Green (1977) have found subjects can be sensitized to imagery through intervening at critical moments during biofeedback training. In one study, subjects' cerebral activity was monitored with biofeedback equipment. The subjects were alerted by a tone when they began to emit theta brain-wave patterns, which the Greens had found associated with deep relaxation and hypnagogic imagery. At the sound of the tone, subjects were to verbalize the content of the ongoing imagery content. The Greens observed that as subjects were required to report their images over several practice sessions, they greatly increased their ability to be aware of and hold the images.

Johnson (1981), in training hypnagogic imagery, enhanced subjects' awareness of imagery by recording images reported by the subjects and then playing back the recording to the

to the subjects. The subjects were encouraged to maintain a state of relaxation throughout the process.

In initially eliciting receptive imagery, Clark (1973) asserts that some detail and structure be provided to the subject. As the subject becomes more familiar with the imagery process, Clark recommends more freedom be allowed with less detail provided in the imagery instructions. Both Assagioli (1965) and Leuner (1977) have utilized the deliberate evocation of images as precursors to receptive imagery. Examples of receptive imagery techniques utilizing structured imagery directions are illustrated by Lee and Pulveno (1978, p. 19) and Samuels and Samuels (1975, p. 157).

In summary, relaxation, imagery awareness, and degree of structure are all factors in training receptive imagery. Provisions for each of these factors in receptive imagery training should be more stringent in the initial stages of training. As sensitization to the receptive imagery occurs with practice, attention to these factors becomes less important in directing the flow of receptive imagery.

Summary

The focus of this study is to determine the respective effects of two methods of imagery training, evocative and receptive, on creativity. In support of this study, Kehoe (1978), Parrish (1981), and Johnson (1981) have found various

imagery training methods to enhance creativity. However, there has been no research in which contrasting imagery training approaches were compared in their capacity to enhance creativity.

Evocative imagery training and receptive imagery training largely differ on the dimension of imagery control. Imagery control refers to one's ability to voluntarily control the contents of his or her imagery (Lane, 1974). Controlled and uncontrolled, or autonomous, imagery each have distinct characteristics, as described in Chapter One. The receptive imagery training emphasizes imagery of an autonomous nature. The evocative imagery training focuses on the elicitation of controlled imagery.

The respective effects of the evocative and receptive imagery training methods are ambiguous based on a review of the literature exploring the relationship between imagery control, and creativity. Khatena (1975b, 1976a) found those subjects with more autonomous imagery, i.e., those low on control were more creative than less autonomous imagers. However, Forisha (1981) and Durndell and Wetherick (1976) found imagery control to be associated with greater creativity. Thus, Khatena's research suggests receptive imagery training, with an emphasis on autonomous imagery, would be more efficacious in the enhancement of creativity. Research by Forisha (1981) and Durndell and Wetherick (1976) suggests that evocative imagery, with an emphasis on controlled imagery, will be more facilitative of creative thinking.

CHAPTER III

METHOD

Subjects

Subjects for this study consisted of volunteers, 37 female and 14 male senior psychology students, at one mid-western high school. Volunteers were given extra credit in their psychology class for participating in the study. The volunteers were solicited from two of the four psychology classes at the high school. These two particular classes were chosen due to their meeting times, which made the classes accessible to the researcher.

In discussing the nature of the study with potential volunteers, students were informed of the approximate time investment and that extra credit would be provided. Additionally, it was stated that this was a psychological study involving creativity and that no danger was involved.

Subjects were assigned randomly to one of three groups: An evocative imagery training group, a receptive imagery training group, and a control group. This was accomplished by placing each subject's name in a container, and then drawing names for membership in the respective groups. The researcher performed this procedure separately for each class.

Procedure

There were ten sessions for each of the three groups. All sessions occurred during the subjects' psychology class period. As there were two classes, there were two sets of treatments each day of the study. The classes met at 9:30 and 10:15 in the morning.

Each of the three groups met at different locations in the school. The receptive imagery training group met in a room with cushioned seating. The cushioned seating, which was judged to be quite comfortable, was provided in order to facilitate a relaxation component contained in the receptive imagery training. The evocative imagery training was administered in the psychology classroom, with the subjects instructed to sit at the desks. The more comfortable seating was avoided in the evocative imagery training group in order to insure that the subjects maintained an alert, attentive focus, without lapsing into a state of relaxation. The seating arrangements were considered to be components in the respective treatments.

The control group met in the library where copies of readings by Arieti (1976) were provided by the librarian. The librarian was instructed to have no further contact with the subjects during the session unless a subject attempted to leave before the session was complete. There were no incidents reported where this occurred. Following

the session, students returned the readings to the librarian.

The psychology instructor and the researcher alternated in administering the evocative imagery training and the receptive imagery training on a daily basis. The alternating of experimental treatment administration was deemed necessary to minimize the threat to internal validity posed by the possibility of differential responsiveness by the subjects to the researcher and the psychology instructor.

For those missing imagery training sessions, make-up sessions were administered by the researcher. Four subjects missed evocative imagery training sessions and seven subjects missed receptive imagery training sessions. Make-up sessions consisted of the specific treatment that was missed by the subject. Due to logistical problems, the sequence of treatments as presented in the Appendix was not always maintained in the administration of make-up sessions. Subjects missing control group sessions were not administered make-up sessions.

Pretesting was administered with the instruments Sounds and Images (SI) (Torrance and Cunnington, 1965), Onomatopoeia and Images (OI) (Khatena, 1969), and Torrance Test of Creative Thinking, Figural Form B (TTCT) (Torrance, 1974). This pretesting was performed due to the statistical procedure used to analyze experimental effects of imagery training on the OI, SI, and TTCT. This procedure was the analysis of covariance. The ANOVA subprogram of the

Statistical Package for the Social Sciences (SPSS) System (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) was used to perform the analysis of covariance. The analysis of covariance utilizes one or more covariates to remove covariate influence from a dependent variable. In this study, each instrument's pretest served as that particular measure's covariate. The analysis of covariance was used due to the increased power it provides the experimental design (Huck, Cormier, and Bounds, 1974).

The pretesting was performed over a period of five days preceding the beginning of imagery training. Subjects were tested in their respective psychology classes. Order of test administration was as follows: SI, OI, and TTCT.

Posttesting on all instruments used to measure dependent variables was performed within four days following the cessation of imagery training. Again, subjects were tested in their respective psychology classes. In addition to the SI, OI, and TTCT, the instruments included the Shortened Form of the Betts' Questionnaire upon Mental Imagery (QMI) (Sheehan, 1967a), Questionnaire on Imagery Control (QIC) (Lane, 1974) and Internal Sensation Seeking Scale (ISS) (Bull, 1978). Order of test administration was as follows: SI, OI, TTCT, QMI, QIC, and ISS. The analysis of variance was used to assess experimental effects with the QMI, QIC, and the ISS. The ONEWAY subprogram of the SPSS System (Nie et al., 1975) was used to perform the analysis of variance. The analysis of variance was more

appropriate for these instruments than the analysis of covariance in that the analysis of variance utilizes a posttest measure only. A pretest was precluded due to the similarity of the QMI, QIC, and ISS to the experimental treatments.

When a significant F-ratio was found, the Least Significant Difference (LSD) (Fisher, 1949) procedure was utilized as the post hoc analysis to determine if significant pairwise differences existed. The ONEWAY subprogram of the SPSS System (Nie et al., 1975) was used to perform the post hoc analysis. The .002 level of significance was chosen as the criterion for significant pairwise differences. The .002 level was calculated using Dunn's (1961) formula for significance level in post hoc analysis. Dunn's procedure essentially consists of dividing the experiment's level of significance (α) by the number of planned post hoc comparisons (Kirk, 1968). A probability is obtained for determining significance in the post hoc analysis. This procedure protects against Type I error when multiple post hoc comparisons are to be made in an experiment. These multiple post hoc comparisons result in a probability greater than α that differences will be found due to chance alone. Protection against Type I error was necessary in this experiment due to the multiple analyses performed. There were nine dependent variables analyzed separately using analysis of variance or analysis of covariance. Considering there

were three groups of subjects in this experiment, this resulted in the possibility that twenty-seven post hoc comparisons might be required. This presented an unacceptably high probability that a significant difference would be obtained due to chance alone. Therefore, the significance level in the post hoc analysis was adjusted so that the error rate per experiment was set at $\alpha = .05$ using Dunn's (1961) procedure.

Treatment

There were ten treatment sessions for all groups. Sessions varied in length from approximately seven to fourteen minutes. The sessions were conducted during the psychology class period over a period of three weeks.

Both the evocative imagery training and the receptive imagery training were preceded by an identical introduction to imagery. (See Appendix A for text of the training procedures). This involved simple imagery exercises (e.g., "Now I want you to think of or imagine a red flower") which provided the subjects an opportunity to image before the specific treatments were initiated. Each of the seven modalities (visual, auditory, tactile, kinesthetic, gustatory, olfactory, and organic) were presented to the subjects in this way. The subjects were questioned as to whether they understood the different types or modalities of images. It was felt this initial session was a necessary introduction to insure an optimal response to the training procedures.

Evocative Imagery Training

The first training session was administered immediately following the introductory session. The evocative imagery training sessions were each initiated by directions for the subjects to be attentive. Additionally, subjects were asked to close their eyes. Following this, various scenarios were presented for the subjects to image as narrated by the experimenter. These scenarios were quite detailed. To a great extent, the scenarios were presented in the second person present, as if the subject were actually involved in that particular scenario. The scenarios were written by this researcher with the intent that they would be interesting and relevant to the subjects. The initial scenarios involved topics that were generally reality based. Later, scenarios typically contained themes that were more imaginative and less reality based. It was hoped that these latter, more imaginative scenarios would spur the creative process.

One-minute pauses were provided approximately midway through each imagery training session. Subjects were asked to open their eyes and rest. Following a one-minute pause, introductory instructions were again administered for the subjects to close their eyes and to be attentive, with imagery instructions ensuing. The one-minute pause was intended to facilitate on-task imaging by minimizing fatigue.

"Probes" were inserted into the evocative imagery instructions approximately every one-to-three minutes. Probes are queries as to whether the subject is perceiving the prescribed imagery (e.g., "Can you feel the soreness in your leg muscles?"). It was hoped that probes would aid subjects in staying on-task and to help insure that subjects were processing the imagery instructions.

Five-second pauses were inserted throughout the evocative imagery for two purposes. One purpose involved an attempt to accentuate the probes. Pauses were inserted immediately following a probe, in hopes that a short pause would allow the probe to be more effectual in insuring subject participation in the imagery instructions. This was faded out by the fourth session in order to avoid undue interference in the continuity of the imagery instructions. Another purpose for the five-second pauses pertained to the auditory-verbal imagery (words) presented in the imagery instructions (e.g., The man then said, "Hurry up and leave"). Five-second pauses were inserted following three or more words. This was felt necessary due to the sequential nature of auditory-verbal imagery. Images in the other modalities are concrete referents that require no sequencing (e.g., a sore arm, or a bright sun), whereas to image specific auditory-verbal imagery requires the reproduction of words sequentially. Without a pause, auditory-verbal images could not have been processed as accurately and as

thoroughly. The imagery instructions immediately following the auditory-verbal images would have interfered with the necessary sequencing. The sequencing basically requires the amount of time in which the words can be spoken silently.

Receptive Imagery Training

Following the introduction to imagery, the receptive imagery training was initiated immediately. Relaxation instructions were given at the beginning of each of the receptive imagery training sessions. The relaxation instructions included deep breathing, progressive muscle relaxation, and autogenic suggestions of heaviness. The relaxation procedures were based on techniques by Samuels and Samuels (1975) and by Lee and Pulveno (1978), which were also designed to elicit receptive imagery. It was felt initial relaxation would facilitate the flow of receptive imagery, as indicated by the literature (Crampton, 1969; Leuner, 1973; Samuels and Samuels, 1975; Lee and Pulveno, 1978).

Following relaxation instructions, a "mind screen" (Crampton, 1969) was introduced. This was described as a "large white screen." It was suggested to the subjects that they would begin to see the images spoken of on this screen. The mind screen was to serve as a catalyst and anchor which would facilitate the emergence and realization of imagery. This technique was phased out in Session V, as the subjects complained it interfered with the receptive imagery process.

In each receptive imagery training session, there were usually two scenarios. As with the evocative imagery training, these scenarios were written to be interesting and relevant to the subjects and to be imaginative in order to stimulate the creative process. The final two sessions did not involve scenarios. These contained instructions that encouraged awareness of any imagery intent that appeared to the subject. This lack of structure was intended to more fully promote the subjects' receptive imagery as an autonomous and original process.

After each scenario, there were instructions for the subjects to recall the imagery experienced. This was to augment awareness of the imagery so the imagery would be remembered better.

The degree of structure in the instructions lessened as training progressed. Earlier sessions contained rather specific questions in order to prompt the receptive imagery (e.g., "How tall are the trees?" or "What color is the sky?"). Later sessions contained less prompting, and more time was allotted for a free flow of imagery. Pauses of 10 to 90 seconds were interspersed between instructions to encourage this free flow of images. As the sessions progressed, there was less specificity in the verbal instructions.

At the end of each receptive imagery training session, instructions were provided to insure that the subjects were fully awake and alert. This was to insure subjects could immediately return to class with no drowsiness.

Control Group Readings

The control group was assigned to read Chapters One to Three in Silvano Arieti's book entitled Creativity: The Magic Synthesis (1976). Chapters One to Three are "The Creative Process," "The Major Theories of Creativity: A Critical Review," and "Imagery." These readings were chosen on the basis of their theoretical nature. It was felt the reading would not contribute to functional creativity or imagery ability, considering there were no practice exercises involved.

Instrumentation

Internal Sensation Seeking Scale

The Internal Sensation Seeking Scale (ISS) (Bull, 1978) was intended to measure an "introspective, internal imaging, imaginative type of ability" which may be a precondition to creativity (Bull, 1978). The ISS consists of 45 items in a self-report format. The items consist of statements which reflect a tendency to prefer (or not prefer) internal sensation seeking. For example, "Sometimes I like to let myself go in fantasy before I go to sleep" and "I like to create ideas and think about them" are items on the ISS which reflect a tendency or predisposition to be aware of and utilize internal sensations. A summative scale with five response alternatives is used for scoring. These response

alternatives are: Strongly disagree, disagree, neutral, agree, and strongly agree. A total score is calculated by assigning numbers from 1 to 5 to the response alternatives. Instructions for the subjects are included on the test forms.

The ISS was constructed by sampling various aspects of fantasy, daydreaming, imagination, and imagery. Most items were related to either visual or verbal imagination or imagery. The selection of this item content for the test construction was based on the assumption that various aspects of fantasy, daydreaming, imagination, and imagery were related to creativity. The test was originally administered to 207 college undergraduates.

Reliability

In the original sample, Bull (1978) found the Hoyt internal reliability to be .88. In this study, the Cronbach (1951) alpha internal reliability was found to be .86.

Validity

Bull (1978) correlated the ISS with an extensive battery of measures tapping various aspects of creativity. Several of these instruments were developed by Bull (1978). These include the Curiosity Scale, the Need for Creative Production (NCPROD), and the Privacy Scale. Additionally, the How Do You Think test (Davis, 1975; Davis and Subkoviak,

(1975), a self-report of past creative activities (SPCA), and art and literature product ratings were correlated with the ISS. The correlations between the ISS and the Curiosity Scale, the Privacy Scale, NCPROD, HDYT, SPCA, art product ratings, and literature product ratings were .66, .30, .47, .61, .40, .23, and .18, respectively. All of these correlations were significant at the .005 level except the ISS correlation with literature product ratings. This correlation was significant at the .01 level.

Shortened Form of the Betts' Questionnaire upon Mental Imagery

The Shortened Form of the Betts' Questionnaire upon Mental Imagery (QMI) (Sheehan, 1967a) is a measure of imagery vividness. Subjects are asked to "think" of various images, and to rate the vividness of these images on a seven-point rating scale. Vividness ratings range from scores of 1 (perfectly clear and as vivid as the actual experience) to 7 (no image at all, you only "know" that you are thinking of the object). Low scores reflect higher vividness ratings. The QMI is self-administered with no time limit.

Sheehan (1967a) administered the original form of Betts' QMI (Betts, 1909) to 140 males and 140 females drawn as volunteers from undergraduate psychology classes at the University of Sydney. Results showed a single factor

was largely responsible for the variance of scores within each of the seven modalities. These seven modalities are: Visual, auditory, kinesthetic, tactile, gustatory, olfactory, and organic. Five items from each of the seven modalities were selected which loaded highly on the main component, showed similar means and standard deviations, and were not affected by sex of the subject (Sheehan, 1967a).

Reliability

Juhasz (1972) found the internal reliability coefficient to be .99. His subjects were twelve professors. Juhasz (1972), collecting QMI scores from sixty-seven college undergraduates, found the internal reliability coefficient to be .95. In the present study, the Cronbach (1951) alpha internal reliability coefficient was found to be .87.

The test-retest reliability of the QMI varied with the time interval between administrations. Evans and Kamemoto (1973) found the test-retest reliability coefficient to be .91 over six weeks. These findings were based on the responses of 35 college undergraduates. Sheehan (1967b), using 62 male college undergraduates, found the test-retest reliability coefficient to be .78 over seven months. Using 147 college undergraduates, Westcott and Rosenstock (1976) found the test-retest reliability coefficient to be .74 over two weeks.

Validity

Construct validity for the QMI has been established primarily through factor analysis (White, Sheehan, and Ashton, 1977). Sheehan (1967a) reported a large general factor and seven smaller factors modality specific. This finding of a large general factor has been confirmed by Richardson (1969), citing high intermodality correlations to substantiate this claim. Both Sheehan (1967a) and Richardson (1969) assert that this large general factor reflects imagery ability.

In terms of criterion-related validity, Rehm (1973) administered the QMI and two additional measures of imagery vividness to 74 college undergraduates. These additional measures were constructed by Rehm for this study, and tapped imagery vividness in the visual modality only. In these measures, subjects were required to image each of a series of items or scenes, and then to rate the vividness of their imagery. Imagery ratings were the same as those utilized on the QMI. The QMI correlated .50 and .56 with these measures. These correlations were significant at the .01 level.

Researchers have long speculated that the variable of social desirability might potentially bias a subject's performance on self-report measures of imagery (White et al., 1977). The possibility that a biasing effect exists due

to the effects of social desirability poses questions as to the validity of self-report imagery measures (Durndell and Wetherick, 1975). Both the Validity I Scale (Tellegen, 1972) and the Marlow-Crowne Scale (MC) (Crowne and Marlowe, 1964) are indices of a need for social desirability. Researchers have correlated the Validity I Scale scores and the MC scores with the QMI to determine if a significant response bias exists in the QMI's administration. With the Validity I Scale scores, the QMI correlated from .23 to .14 within the seven modalities (Lane, 1974). These correlations are "consistently small and insignificant" (White et al., 1977).

The MC scores and QMI scores have shown inconsistent correlations. Di Vesta, Ingersoll, and Sunshine (1971) obtained a significant correlation of .29, using 232 college undergraduates as subjects. Durndell and Wetherick (1975) reported findings with three samples of college undergraduates in respect to correlations between the QMI and MC. In one sample of 53 subjects, a significant correlation of .46 was found between the QMI and MC. However, results from two additional samples of 36 and 185 subjects showed non-significant correlations of -.05 and .14, respectively.

After reviewing the literature, White, Sheehan, and Ashton (1977) conclude that QMI scores are affected "at least to some extent" by social desirability. It appears that social desirability is more influential on QMI

performance when subtle demands to perform well are communicated to subjects (White et al., 1977).

Questionnaire on Imagery Control

The Questionnaire on Imagery Control (QIC) (Lane, 1974) is a measure of imagery control. Each item consists of two parts. Initially, the subject is instructed to image a particular scene. Then the subject is instructed to change or manipulate the image in a certain way. Scoring is based on a five-point rating scale. Ratings range from zero ("Unable to image the first part of the item") to four ("Able to change the image as suggested and to hold it in my imagination very naturally and easily"). The QIC is self-administered with no time limit.

The QIC was developed on the basis of an informal pilot study, using 320 college undergraduates. A total of 70 items were originally written on an intuitive basis--ten items for each of seven modalities. These seven modalities are: Visual, auditory, kinesthetic, cutaneous, gustatory, olfactory, and feeling states. Eighteen subjects rated the 70 items on an eight-point scale. A total of 35 items were selected from the original seventy on the basis of equivalent familiarity and difficulty within each modality.

Reliability

Lane (1974) found the internal reliability of the QIC to be .85. Lane (1974) writes that the internal reliability

of the QIC scores, "based on the average correlation among items is clearly satisfactory for a research instrument." In this study, the Cronbach (1951) alpha internal consistency reliability was found to be .83.

Validity

As evidence of construct validity, only one major factor was obtained in a factor analysis of the QIC. This was an imagery ability factor (Lane, 1974).

In support of the QIC's criterion-related validity, Lane (1974) reports a correlation of .53 (p .01) between the QIC and Gordon. The Gordon is also a measure of imagery control, but taps the visual modality only.

As the QMI, the QIC is a self-report imagery measure whose validity may be influenced by response bias. Scores from the Validity I Scale (Tellegen, 1972) were correlated with QIC scores to determine the effect of social desirability on the QIC. The QIC scores correlated -0.10 with the Validity I Scale scores (Lane, 1974). This insignificant correlation suggests the QIC is not affected by social desirability.

Torrance Tests of Creative Thinking

The figural form (Form B) of the Torrance Tests of Creative Thinking (TTCT) (Torrance, 1974) was used in this study. The figural form includes three activities with an

administration time of thirty minutes. The three activities in Form B are the Picture Construction Activity, the Incomplete Figures Activity, and the Repeated Figures Activity. The Picture Construction Activity involves the presentation of a jelly bean shape on the test booklet and requires subjects to think of and draw a picture in which the shape is an integral part. As an effort to elicit an original response, subjects are asked to think of something that no one else will produce. Also, subjects are asked to add ideas that will make the picture tell as complete and as interesting a story as possible. This is to promote elaboration.

The Picture Completion Activity is similar to the Picture Construction Activity. However, instead of one shape or design, there are ten. As in the Picture Construction Activity, originality and elaboration are encouraged.

The Repeated Figures Activity presents forty circles on the test booklet. Subjects are asked to see how many objects or pictures they can make by adding lines to the circles. The instructions stipulate that the circles be in the main part of whatever is drawn.

From the Picture Construction Activity, the Incomplete Figures Activity, and the Repeated Figures Activity, scores for fluency, flexibility, originality, and elaboration are derived. Fluency, flexibility, originality, and elaboration are components in Torrance's (1966a, 1974) operational definition of creativity, and were used to measure dependent

variables involving TTCT data in this study. Fluency is the number of relevant responses to an item. Flexibility is the number of different categories into which the responses fall. Originality is based on the statistical infrequency of responses. Elaboration involves counting additional details in each response. Scores for fluency, flexibility, originality, and elaboration are based on criteria stipulated in the scoring manual (Torrance, 1974). When the scoring manual is read and adhered to carefully, there has been little difficulty in obtaining high levels of interscorer reliability. Correlations of .90 or above are almost always obtained between experienced scorers and inexperienced scorers who are familiar with the manual (Torrance, 1974).

In this research, the figural form of the TTCT was used in the assessment of creativity due to the imagery component seemingly inherent in the visual-spatial aspects of drawing required in the TTCT figural activities.

The TTCT figural form requires that the examiner read directions to subjects before each subtest is administered, with ten minutes allotted for each of the three subtests. The figural form may be group administered, and is standardized for students from kindergarten to graduate school, including high school students.

Reliability

In terms of test-retest reliability, Hagender (1967) administered the alternate forms of the figural battery to

118 fourth, fifth, and sixth grade children. Testing was separated by one week. Reliability coefficients of .71, .73, .85, and .83 were obtained for fluency, flexibility, originality, and elaboration, respectively.

In the same study, Hagender (1967) administered the alternate forms of the figural battery in assessing test-retest reliability. His subjects were 54 fifth graders. The battery was administered to 28 subjects one week apart. Twenty-six subjects were administered the battery eight months apart. In the first group, reliability coefficients of .50, .63, .60, and .71 were obtained. In the second group, reliability coefficients of .80, .64, .60, and .80 were obtained. These coefficients were obtained for fluency, flexibility, originality, and elaboration, respectively.

Grover (1963) tested and retested 101 ninth grade students one week apart on the Repeated Figures Activity. A test-retest reliability coefficient of .69 was obtained.

Validity

Torrance (1972b) has tested the predictive validity of the TTCT through a long-range predictive study of 236 students tested in high school and then followed up twelve years later. Three criteria of later creative behavior were used: (a) Ratings of quality of most creative achievement, (b) numbers of creative achievements reported, and (c) creativeness of future aspirations. The canonical

correlation between the creativity predictors (fluency, flexibility, and originality) and the three criterion variables was .51 ($p < .01$). Separately, each creativity predictor successfully predicted on the three criterion variables. All predictive validity coefficients were significant at the .01 level.

Yamamoto (1964) assessed the concurrent validity of the TTCT using 459 students from grades seven through twelve. He correlated the fluency and flexibility scores with peer nominations of creative individuals. He found relationships in the eighth, ninth, and tenth grades to be consistently significant at the .05 level.

Nelson (1963) used teacher nominations of outstanding students to assess concurrent validity for scores on fluency, flexibility, originality, and elaboration. His subjects were 72 fifth and sixth grade students. Originality and elaboration both were significantly correlated with teacher nominations at the .05 level.

A large number of studies have been conducted to assess the construct validity of the TTCT (Torrance, 1974). Some of these studies have involved the comparison of personality characteristics of persons achieving high scores on the TTCT with those who have low scores. Other studies have involved correlating TTCT scores with other measures, such as projective testing (Weisberg and Springer, 1961) and quality of play (Lieberman, 1965). After reviewing this

multitude of studies with many significant correlations, one is impressed with the multifaceted nature of the TTCT.

Sounds and Images

Sounds and Images (SI) was originally developed by Torrance and Cunnington (1965) to be used as a testing device to assess originality of thinking and as a training medium to motivate creative activities (Khatena and Torrance, 1973). It is presently primarily used as a measure of originality in children and adults. The SI consists of three repetitions of a group of four recorded sounds with narrated instructions interspersed throughout. As the sounds are presented, the listener is asked to record an image that comes to mind. The test relies on the process of free association and uses sounds which are both ambiguous and unusual. These sounds are intended to evoke original responses as a result. Special techniques in the instructions assist the listener to break free and allow the imagination to create original verbal images, such as progressive warm-up, legitimizing divergent thinking, providing freedom from the threat of evaluation, and inviting regression.

Originality is scored from zero to four points with statistical infrequency the criterion. Criterion responses are presented in the scoring guide. According to the manual (Khatena and Torrance, 1973), scoring of test responses should not provide undue difficulty. Anyone who reads the

manual carefully and follows the scoring guide should find scoring relatively easy. Interscorer reliability coefficients ranging from .88 to .97 with an average coefficient of .95 have been found (Khatena and Torrance, 1973).

In this study, Form 1B is used. Form 1B is standardized for high school seniors, and may be group administered.

Validity

To assess criterion related validity for the SI, Something About Myself (Khatena, 1976a), a creativity checklist, was used as a criterion. Scores from the SI (Form 1B) correlated .18 with scores from Something About Myself ($p < .05$). The subjects were 144 junior and senior high students (Khatena and Torrance, 1973). Additionally, SI (Form 1B) scores correlated .39 with Onomatopoeia and Images scores ($p < .01$), using 39 children (Khatena, 1971b). With 647 children, measures of verbal originality from the verbal form of the TTCT correlated significantly with Form 1B scores ($r = .13$, $p < .01$) (Torrance, 1966b). Self-ratings on a ten-point creativity scale correlated .35 ($p < .01$) with Form 1B scores, using 144 children (Khatena and Torrance, 1973).

Reliability

To assess test-retest reliability, Khatena (1971c) administered Form 1A and 1B of the SI three months apart.

His subjects were 34 elementary children. A reliability coefficient of .36 was obtained ($p < .05$). Additionally, Forms 11A and 11B were administered seven days apart, using 137 college students. A reliability coefficient of .77 was obtained (Torrance and Khatena, 1969).

In this study, the Cronbach (1951) alpha internal reliability coefficient was calculated for both the SI pretest and posttest. These coefficients were .50 and .51, respectively.

Onomatopoeia and Images

Onomatopoeia and Images (OI) (Khatena, 1969) is a test of verbal originality for children and adults. The OI presents four recorded onomatopoeic words four times. After each presentation, the listener is to write whatever image comes to mind as a result. Preceding and between each presentation, recorded instructions are provided. These instructions are intended to facilitate the emergence of original responses by providing for such contingencies as a progressive warm-up, legitimizing divergent thinking, de-emphasizing evaluation, and inviting regression.

Originality is scored from zero to four points with statistical infrequency the criterion. Criterion responses are presented in the scoring guide. Interscorer reliability coefficients ranged from .95 to .99 (Khatena and Torrance, 1973). The authors feel anyone who reads the

manual and follows the principles outlined in the scoring guides would find scoring relatively easy.

The OI is standardized for high school seniors, and may be group administered. Form 1B is used in this study.

Reliability

To determine the degree of internal consistency reliability, product moment coefficients were obtained by correlating the odd-even items of Forms 11A and 11B. The subjects were two samples of college undergraduates. There were 81 and 131 subjects in each of the two samples. Using the Spearman-Brown prophecy formula, correlations of .70 and .79 were obtained, respectively (Khatena and Torrance, 1973).

In the present study, the Cronbach (1951) alpha internal reliability coefficient was calculated for both the OI pretest and posttest. These coefficients were .65 and .57, respectively.

To determine alternate-form reliability, 77 high school students were administered forms 1A and 1B of the OI. A reliability coefficient of .77 was obtained between the two forms (Khatena and Torrance, 1973).

Validity

A creativity checklist entitled Something About Myself (SAM) (Khatena, 1971a) was utilized as a validity criterion

for OI (Form 1B). The subjects were 144 junior and senior high school students. Scores from OI and SAM were significantly correlated (r = .15, $p < .05$) (Khatena and Torrance, 1973).

Also to determine criterion-related validity, OI scores (Form 1B) were correlated with TTCT scores (Verbal Form A) for fluency, flexibility, and originality. The subjects were 116 junior high students. Significant correlations were found between OI scores and scores for fluency and originality. These correlations were .37 and .39, respectively ($p < .01$) (Khatena and Torrance, 1973).

CHAPTER IV

RESULTS

The primary focus of this study is to examine the effects of evocative imagery training and receptive imagery training on creativity. Additionally, the effects of the two methods of imagery training on imagery vividness and imagery control are assessed.

The analysis of covariance was used to analyze the effects of imagery training on the OI, SI, and TTCT fluency, flexibility, originality, and elaboration. Each instrument's pretest served as that measure's covariate. The analysis of variance was used to analyze the effects of imagery training on the QMI, QIC, and ISS. The .05 level was chosen as the level of significance for results from both the analysis of variance and analysis of covariance. In the post hoc analysis, the LSD (Fisher, 1949) procedure determined if a significant pairwise difference existed when a significant F-ratio was found. The .002 level was chosen as the minimum criterion for significance in the post hoc analysis.

Hypothesis One: There are no significant differences among the mean QMI scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training.

This hypothesis is rejected. An analysis of variance indicates that there are significant differences among the means of the imagery training groups and the control group on the QMI (F = 4.83, p = .01). The analysis of variance results are presented in Table I. The group means and standard deviations are presented in Table II (p. 52). The results of the post hoc analysis indicate there are no significant pairwise differences between the means of the three groups. The means and differences between means of the three groups are presented in Table III (p. 52).

TABLE I

ANALYSIS OF VARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE SHORTENED FORM OF THE BETTS' QUESTIONNAIRE UPON MENTAL IMAGERY

Source	df	MS	F	p
Between	2	2193.50	4.83	.01
Within	48	454.48	3	
TOTAL	50			

TABLE II

MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE SHORTENED FORM OF THE BETTS' QUESTIONNAIRE UPON MENTAL IMAGERY

Group	N	$\bar{X}$	S
Evocative Imagery Training Group	17	92.29	21.97
Receptive Imagery Training Group	17	81.59	21.52
Control Group	17	104.29	20.44

TABLE III

POST HOC ANALYSIS OF SCORES OF EXPERIMENTAL AND CONTROL GROUPS ON THE SHORTENED FORM OF THE BETTS' QUESTIONNAIRE UPON MENTAL IMAGERY

Means and Differences Between Means of the Groups			
	Receptive $\bar{X}$	Evocative $\bar{X}$	Control $\bar{X}$
	81.59	92.29	104.29
Receptive		10.70	22.70
Evocative			12.00
Control			

Hypothesis Two: There are no significant differences among the mean QIC scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training.

This hypothesis is not rejected. An analysis of variance indicates no significant differences among the means of the imagery training groups and the control group ($F = 2.41$, $p = .10$). The analysis of variance results are presented in Table IV. The group means and standard deviations are presented in Table V (p. 54).

TABLE IV

ANALYSIS OF VARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE QUESTIONNAIRE ON IMAGERY CONTROL

Source	df	MS	F	p
Between	2	583.31	2.41	.10
Within	48	241.81		
TOTAL	50			

TABLE V

MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE QUESTIONNAIRE ON IMAGERY CONTROL

Group	N	$\bar{X}$	S
Evocative Imagery Training Group	17	95.59	15.37
Receptive Imagery Training Group	17	92.18	13.38
Control Group	17	84.18	17.62

Hypothesis Three: There are no significant differences among the mean ISS scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training.

This hypothesis is not rejected. An analysis of variance indicates no significant differences among the means of the imagery training groups and the control group ($F = 1.27$, $p = .29$). The analysis of variance results are presented in Table VI. The group means and standard deviations are presented in Table VII (p. 56).

TABLE VI

ANALYSIS OF VARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE INTERNAL SENSATION SEEKING SCALE SCORES

Source	df	MS	F	p
Between	2	378.49	1.27	.29
Within	48	297.65		
TOTAL	50			

TABLE VII

MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE INTERNAL SENSATION SEEKING SCALE

Group	N	$\bar{X}$	S
Evocative Imagery Training Group	17	155.29	13.17
Receptive Imagery Training Group	17	158.88	17.88
Control Group	17	149.53	19.87

Hypothesis Four: There are no significant differences among the adjusted mean SI scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the SI pretest is used as a covariate.

This hypothesis is not rejected. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups and the control group ($F = 2.10$, $p = .13$). The analysis of covariance results are presented in Table VIII. The adjusted and unadjusted group means, and standard deviations are presented in Table IX.

TABLE VIII

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE SOUNDS AND IMAGES SCORES*

Source	df	MS	F	p
Explained	2	93.35	2.10	.13
Residual	47	44.38		
TOTAL	50	62.11		

* Sounds and Images pretest scores are covariate factors.

TABLE IX

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE SOUNDS AND IMAGES SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	20.28	20.59	11.04
Receptive Imagery Training Group	17	20.67	20.94	10.58
Control Group	17	16.41	15.83	11.24

Hypothesis Five: There are no significant differences among the adjusted mean OI scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the OI pretest is used as a covariate.

This hypothesis is not rejected. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups, and the control group ($F = 2.42$, $p = .10$). The analysis of covariance results are presented in Table X (p. 58). The adjusted and unadjusted group means, and standard deviations are presented in Table XI (p. 58).

TABLE X

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ONOMATOPOEIA AND IMAGES SCORES*

Source	df	MS	F	p
Explained	2	127.38	2.41	.10
Residual	47	52.98		
TOTAL	50	97.60		

* Onomatopoeia and Images pretest scores are covariate factors.

TABLE XI

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ONOMATOPOEIA AND IMAGES SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	24.15	24.36	6.54
Receptive Imagery Training Group	17	22.04	22.77	11.52
Control Group	17	18.70	17.77	10.21

Hypothesis Six: There are no significant differences among the adjusted mean TTCT fluency scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the fluency pretest is used as a covariate.

This hypothesis is not rejected. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups, and the control group (F = .82, p = .45). The analysis of covariance results are presented in Table XII. The adjusted and unadjusted group means, and standard deviations are presented in Table XIII (p. 60).

TABLE XII

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE FLUENCY SCORES*

Source	df	MS	F	p
Explained	2	29.60	0.82	.45
Residual	47	36.21		
TOTAL	50	49.15		

* Fluency pretest scores are covariate factors.

TABLE XIII

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE FLUENCY SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	20.30	19.47	7.51
Receptive Imagery Training Group	17	18.72	18.88	7.12
Control Group	17	21.34	22.00	6.37

Hypothesis Seven: There are no significant differences among the adjusted mean TTCT flexibility scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the flexibility pretest is used as a covariate.

This hypothesis is not rejected. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups, and the control group ($F = 2.46$, $p = .10$). The analysis of covariance results are presented in Table XIV. The adjusted and unadjusted group means, and standard deviations are presented in Table XV (p. 61).

TABLE XIV

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON FLEXIBILITY SCORES*

Source	df	MS	F	p
Explained	2	34.32	2.46	.10
Residual	47	13.94		
TOTAL	50	24.81		

* Flexibility pretest scores are covariate factors.

TABLE XV

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE FLEXIBILITY SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	15.71	14.47	4.68
Receptive Imagery Training Group	17	13.13	13.64	6.07
Control Group	17	15.50	16.23	3.88

Hypothesis Eight: There are no significant differences among the adjusted mean TTCT originality subtest scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the originality pretest is used as a covariate.

This hypothesis is supported by the data. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups, and the control group (F = .06, p = .95). The analysis of covariance results are presented in Table XVI. The adjusted and unadjusted group means, and standard deviations are present in Table XVII (p. 63).

TABLE XVI

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ORIGINALITY SCORES*

Source	df	MS	F	p
Explained	2	7.81	0.06	0.95
Residual	47	139.36		
TOTAL	50	166.53		

* Originality pretest scores are covariate factors.

TABLE XVII

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ORIGINALITY SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	35.02	34.41	13.96
Receptive Imagery Training Group	17	34.18	34.53	13.81
Control Group	17	33.67	33.94	11.59

Hypothesis Nine: There are no significant differences among the adjusted mean TTCT elaboration subtest scores of the subjects who are given evocative imagery training, receptive imagery training, or are not given imagery training when the elaboration pretest is used as a covariate.

This hypothesis is not rejected. An analysis of covariance indicates no significant differences among the adjusted means of the imagery training groups, and the control group (F = 0.012, p = .99). The analysis of covariance results are presented in Table XVIII (p. 64). The adjusted group means and standard deviations are presented in Table XIX (p. 64).

TABLE XVIII

ANALYSIS OF COVARIANCE RESULTS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ELABORATION SCORES

Source	df	MS	F	p
Explained	2	2.73	0.01	0.99
Residual	47	226.99		
TOTAL	50	402.96		

* Elaboration pretest scores are covariate factors.

TABLE XIX

ADJUSTED AND UNADJUSTED MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL GROUPS ON THE ELABORATION SCORES

Group	N	Adjusted $\bar{X}$	Unadjusted $\bar{X}$	S
Evocative Imagery Training Group	17	41.31	40.76	18.37
Receptive Imagery Training Group	17	40.85	39.05	22.28
Control Group	17	41.55	44.00	20.30

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the respective effects of two methods of imagery training, receptive and evocative, on measures of creativity, imagery vividness, and imagery control. It was hypothesized that both the receptive imagery training and evocative imagery training would significantly improve scores on the TTCT, OI, SI, ISS, QMI, and QIC, as compared to scores obtained from a control group.

Fifty-one volunteers were solicited from a population of senior psychology students at one midwestern high school. The subjects were randomly assigned to one of three conditions: An evocative imagery training group, a receptive imagery training group, and a control group. The evocative and receptive imagery training methods were based on a literature review of the two imagery types. (See Chapter III for a detailed description of the imagery training methods.) The control group was assigned readings from Creativity: The Magic Synthesis, by Arieti (1976).

Each group met for 10 sessions with a total time investment of approximately two hours. The two experimental groups were alternately conducted by this researcher and the psychology class instructor. The control group was administered the readings by a librarian at the high school.

The analysis of covariance was used to determine the experimental effects of the imagery training methods with scores from the TTCT, OI, and SI. Pretest scores from each of the instruments served as the covariate for that particular measure. The analysis of variance was used to determine experimental results with scores from the QMI, QIC, and ISS.

Table I (p. 51) indicates that there are significant differences among the evocative imagery training group, receptive imagery training group, and control group on the QMI scores. The QMI is a measure of imagery vividness. These differences are in the predicted direction of greater vividness ratings for the experimental groups, as indicated by the QMI group means in Table II (p. 52). However, the post hoc analysis displayed in Table III (p. 53) indicates no pairwise differences exist between any of the groups on the QMI. These discrepant results between the analysis of variance and the post hoc analysis may be partially explained by the conservative significance level (.002) employed in the post hoc analysis. This level of significance was computed using Dunn's (1961) procedure, and was intended

to protect against a high Type I error rate resulting from separate analyses of the nine dependent variables.

Table IV (p. 53) indicates that neither evocative imagery training nor receptive imagery training significantly improved QIC scores. The QIC is a measure of imagery control.

Tables VI (p. 55), VIII (p. 56), X (p. 57), XII (p. 59), XIV (p. 61), XVI (p. 62), and XVIII (p. 64) indicate none of the scores from the creativity instruments were significantly affected by the evocative imagery training or receptive imagery training. The above tables refer to the ISS, SI, OI, and TTCT scores for fluency, flexibility, originality, and elaboration, respectively.

Conclusions

From these results, it may be concluded that evocative imagery training and receptive imagery training are not effective means by which to improve imagery control as measured by the QIC. This same conclusion is somewhat attenuated for the imagery vividness variable considering that an F-ratio significant at the .01 level was obtained for the QMI data with the analysis of variance, with group mean differences in the predicted direction. However, the results of the post hoc analysis showing no significant pairwise differences between group means on the QMI prevent this researcher from making any definitive statements

concerning the positive benefits of these imagery training methods on imagery vividness scores.

Considering that neither of the imagery training methods significantly affected scores from the creativity instruments (ISS, SI, OI, and TTCT), it may be concluded that imagery training as contained in this present study's evocative and receptive methods is not an effective means by which to enhance creativity in high school psychology students as measured by these instruments. In interpreting this lack of significant results, the fact that neither imagery control nor imagery vividness scores were significantly improved as a result of the imagery training methods is pertinent. Considering improved imagery skills were to be the vehicle by which creativity was enhanced, it is then difficult to conclude that a more effective imagery training method in terms of improving scores for imagery vividness and imagery control would not enhance creativity. If the imagery instrumentation had been more responsive to this imagery training, then a more definitive statement could be made concerning the role of imagery training in general to creativity enhancement.

This study's results corroborate Kehoe's (1978) findings that imagery control is not improved as a result of imagery training. However, in contrast to results from the present study, both imagery vividness and creativity have been enhanced by various imagery training methods (e.g.,

Ritter, 1978; Parrish, 1981; Johnson, 1981). This discrepancy from previous research suggests the possibility that the imagery training methods implemented in this study are less effective than other approaches previously reported in the literature.

Recommendations

1. In the initial four sessions of receptive imagery training, subjects were requested to observe their images on a "large white screen." This technique is referred to as the "mind screen" (Crampton, 1969). Several subjects spontaneously complained that this technique seemed to interfere with the imagery process. Thus, the mind screen was discontinued in the fifth session. Based on this experience, it seems advisable to avoid this technique in training receptive imagery in future studies.

2. Receptive imagery training involved the induction of a relaxation state. Based on observation and subjects' self-reports, it appeared that some subjects were unresponsive to imagery instructions due to the diffuse state accompanying deep relaxation. This unresponsiveness may have adversely affected the subjects' ability to be aware of and retain the content of their imagery. If this occurred, then improvement in creativity was less probable. It may be that less emphasis on the relaxation component would remedy this problem. Also, more effective

intervention might be provided throughout the instructions to enhance the retention of the imagery content. This could be performed verbally, as was done in this study with brief instructions for subjects to recall their imagery. If more frequent and elaborate instructions were provided to encourage subjects to be aware of ongoing imagery, then retention of imagery content might be augmented. However, mechanical means (e.g., biofeedback) such as have been implemented by Green and Green (1970, 1977) may be more effective for this purpose.

3. Each of the ten sessions in the evocative and receptive imagery training were somewhat similar to one another. This may have resulted in the training of a narrow range of imagery skills within either of the two methods of imagery training. More varied imagery exercises could be presented to expand the diversity of training (see Khatena, 1977a, 1977b). A more varied approach might allow for more generalization and transfer to various creativity measures.

4. In this study, there were ten training sessions for both evocative imagery and receptive imagery. The total training time was approximately two hours for either training method. It may be that this time investment of approximately two hours spread over a three-week duration was not sufficient to solidify gains in imagery ability or creativity. Possibly, longer and/or a greater number of training

sessions would be more beneficial in achieving significant training effects with these imagery training methods. An additional possibility would be to collapse the same treatments into a shorter span of time.

Limitations and Methodological Concerns of the Study

1. The results of this study are generalizable only to the population from which the subjects were sampled.

2. The "mind screen" (Crampton, 1969) was discontinued in the fifth session due to subjects' complaints that it interfered with the receptive imagery process. Considering this technique was initially implemented on the basis of a literature review, it would have been preferable to maintain the mind screen technique throughout the entire ten sessions to insure proper implementation of the receptive imagery training.

3. The imagery training methods were administered by the researcher and the psychology instructor. The researcher and psychology instructor alternated in administering the treatments to either of the two imagery training groups. This was to prevent a potential biasing effect due to differences in each experimenter's style, personality, etc. The librarian administered the control group readings. There was very minimal contact between the librarian and the control group subjects. The librarian simply dispensed

the readings initially in the sessions and then received them at the sessions' end. However, this is a threat to the study's validity due to potential differential responsiveness of control group subjects to the librarian. It would have been preferable to involve the librarian such that each experimenter would have been exposed equally to each group.

4. Make-up sessions were administered to those subjects missing imagery training sessions. Four subjects missed evocative imagery training sessions and seven subjects missed receptive imagery training sessions. Both the researcher and the psychology instructor recorded absences in various training sessions. However, all make-up sessions were administered by the researcher. This potentially introduced a further biasing effect due to the additional exposure of the researcher to the subjects receiving imagery training.

5. In administering make-up treatments, there were instances when subjects received treatments out of sequence as presented in the Appendix. This may have affected the acquisition of imagery skills, considering treatments were intended to build requisite skills for subsequent treatments.

6. No make-up sessions were administered to subjects missing control group sessions. This distinction between the control group and the experimental groups may have

affected the subjects' perception of their role in the study, and thus threaten the study's validity.

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APPENDIX

EVOCATIVE AND RECEPTIVE IMAGERY TRAINING MATERIALS

INTRODUCTION TO IMAGERY

I am going to ask each of you throughout the next ten sessions to think of or imagine various pictures or images. I will give you an example. First of all, close your eyes (5 seconds). Now, I want you to think of or imagine a red flower. Can everyone see a red flower? Now, imagine a big black crow (5 seconds). The flower and the crow are both examples of things you can see or images. But only in your mind--they are not real or authentic. You can also hear sounds in your mind though no sound is really there. I would like to give you an example of this type of image. Now, imagine you hear the whistle of a train (5 seconds). (Await affirmation.) Now, listen to your best friend's voice (5 seconds). This was an image you can hear. You can also have images of your sense of touch. For example, image a pin pricking your index finger (5 seconds). Now, image a cold ice pack on your forehead (5 seconds). There may also be images of your muscles moving or stretching. For example, can you feel your legs tire as you see yourself run a long distance (5 seconds). Can you sense your arm as you open a door (5 seconds)? You may also smell images. For example, an onion you are peeling (5 seconds), or the trash as you take it outside

(5 seconds). You can also taste images, such as that of a juicy steak (5 seconds), or a Coca Cola (5 seconds).

Feelings can also be imaged, such as the excitement you feel on Friday afternoon after school is out for the weekend. Can you feel this (5 seconds)? Can you sense the relief after finishing your last exam (5 seconds)?

Body states can also be imaged, such as a splitting headache (5 seconds) or extreme hunger after not having eaten for two days. Can you feel this hunger (5 seconds)? These imaginings or images are all experiences you can create or receive. Now, open your eyes. Does anyone have any questions about what an image is? Does everyone understand the different types of images? If so, we will begin our imagery exercises.

EVOCATIVE IMAGERY TRAINING: SESSION I

Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clapsed in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes (5 seconds). First of all, I want you to see in your mind with your eyes closed that flower you pictured a few minutes ago. Can you see the flower (5 seconds)? Now, I want you to see the flower surrounded by a yard of green grass. Now, on this yard of green grass I want you to see instead of the one flower, four flowers.

Watch them as they sway in the breeze. You also hear birds chirping in the background and the sound of cars passing on the nearby road. Can you hear these sounds (5 seconds)? Also, you begin to feel the heat of the sun on the back of your neck. Now, you are walking over toward those four flowers. You bend down and observe one flower very closely, even smelling it. Can you smell it (5 seconds)? Now, you stand up and begin walking away from the flowers, and turn around one last time to see them. Now, instead of four flowers there are eight flowers, each one a different color. Soon, as you begin to observe this area more closely you see more than just flowers and grass. You see trees, such as firs and maples and elms. You see and hear a brook or stream several feet away from your feet, trickling down the slope of a hill. You now sit down, feeling the moistness of the ground as it seeps through your clothing. Can you feel this moistness (5 seconds)? You soon begin to itch and decide to stand up and go for a long walk to explore this area more completely. As you begin walking, the sound of the stream attracts you. You angle back toward the stream and upon reaching it, lie down by the water. What you see surprises you. You see many fish, large and small, brightly colored. They are all swimming very rapidly, darting back and forth. There is much dark green vegetation growing at the bottom. The stream is much deeper than you had thought. Coming

down the stream you can see two scuba divers. They each have lights and spearguns in their hands. They are swimming very rapidly toward the fish. All of a sudden, one draws his speargun and shoots into a crowd of fish. Miraculously, the spear harmlessly passes through the crowds of fish as they swim even faster in panic. The other diver quickly draws his spear and shoots again--he also misses. Now, the fish have all been scared away and you watch as the divers swim away. As you continue to observe the water, you suddenly hear a noise behind you. You turn around quickly and there is a big man with a badge on his shirt. He seems angry and disturbed. He asks, "Have you seen any divers in this area (5 seconds)? Can you hear him (5 seconds)? You reply, "Just a few minutes ago I saw two swim down the stream" (5 seconds). Can you hear yourself (5 seconds)? This seems to please the man as a smile flickers across his face. You watch as he runs down the slope of a hill following the course of the stream, seeming to be quite excited. You notice that your heart is beating fast and realize that the man had temporarily startled you. You give a sigh of relief and stand up to walk out of these woods back to your car on the road. Can you feel this relief (5 seconds)? Can you see and feel yourself walking out of the woods (5 seconds)?

Now, you can open your eyes, this session is over.

End of Session I

EVOCATIVE IMAGERY TRAINING: SESSION II

Attention Please! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds). You see yourself driving a car down a two-lane highway in rural Oklahoma. Off to your left you see a mass of trees just turning green in the beginning of spring. To your right there is a farm house and barn with cattle milling about outside the barn. As you continue driving, you reach down and turn your radio on. Immediately, you hear a country western song you hate called "Okie from Muskogee!" (5 seconds). You rapidly change the channel to your favorite station. Fortunately, there is a song playing that you like called "Tusk." You listen to the song for a few moments (5 seconds), then glance back to the road. You notice that you are coming upon a car which is stopped turning left. You feel a sense of panic as you rapidly reach for the brake with your foot. In a moment of relief, you realize you have plenty of time to stop and do so about 10 feet in front of this car. It is a Mustang, with its left blinker on. Can you see the Mustang (5 seconds)? As the car turns left onto a dirt road, you proceed on. To the right, you see a plush green field of some sort of

crop. A little further on you see a collection of farm machinery. Looking ahead you see you are coming to a bridge. As you approach the bridge, you see a very beautiful river below. From this bridge you can see for many miles. Again, you notice that the trees are turning green. Can you see these trees (5 seconds)? As you come down from the bridge, you notice a car stopped on the left side of the road. Next to the car there is a very big man with a dark, shaggy beard. He is attempting to wave you down. You quickly swerve around him and pass on by. As you do, you feel a sense of relief, feeling perhaps the situation was unsafe for you. Can you feel this (5 seconds)? Soon, you come to a major highway. As you enter onto the highway, you pull up to a toll gate. There sits an old man who briskly says, "Dollar eighty, please" (5 seconds). Can you hear him say this (5 seconds)? As you hear this, you suddenly feel very anxious as you realize you don't have any money with you. You state to the man, "I am sorry, sir. I don't have my billfold with me (5 seconds). "Would you take a check?" (5 seconds)? At this statement, the man turns his head very quickly to glare at you for a few seconds and then motions with his finger saying, "Get out of here" (5 seconds). You then smile and say, "I am very sorry, sir" (5 seconds). Can you hear yourself say this (5 seconds)? With a sense of relief, you pull away from the toll gate. Now, open your

eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak. You observe that you are now driving on a busy four lane highway. You say to yourself, "I had better start paying attention to what I am doing" (5 seconds). As this thought occurs to you, you begin to relive a wreck you had three weeks ago in which you carelessly backed into a ditch pulling out of a friend's house. As you relive the wreck, you see that it appears your car is pointed up toward the sky ready for a moon shot. Can you see your car pointed up toward the sky (5 seconds)? As your friend lives out in the country, you panically say to yourself, "I bet it will cost me a fortune to get a tow truck out here!" (5 seconds). You proceed to walk up to your friend's house, feeling slightly embarrassed over your misfortune and carlessness. Can you feel this embarrassment (5 seconds)? You knock on the door. Your friend's father comes to the door with a quizzical look on his face. Then he sees your car in the ditch and chuckles softly, stating, "Had an accident, did you?" (5 seconds). He then invites you into the house stating, "We'll pull you out" (5 seconds). You see and feel yourself heave a big sigh of relief, knowing you will not have to spend a small fortune for a tow truck. Your friend comes in the room with a small grin on his face. You grin at him and say, "I goofed, huh" (5 seconds). Soon your friend's father returns to the living room, and states,

"You just sit right there" (5 seconds). Now you really feel relieved. You watch as your friend's father goes out the front door. Suddenly you notice you are driving on the highway again. As you continue driving on, you see your exit in the distance. You heave a sigh of relief, realizing that your drive is finally almost over.

Now, you can open your eyes, this session is over.

End of Session II

EVOCATIVE IMAGERY TRAINING: SESSION III

Attention Please! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds). You are walking down a sidewalk lined with tall green trees. As you look up, you cannot even see the sky for the thick foliage of the trees. Can you see this thick foliage (5 seconds)? Looking straight ahead, the sidewalk lined with trees extends for as far as you can see. As you look to the left, you see a small two lane road, though currently there is no traffic. Looking to the right there are spacious green fields. Continuing to walk, you begin to feel slightly uneasy, as you don't know where you are. Soon you hear a car on the road to your left. As the car nears you, you run out to the road to wave it down. The car

approaching you is dark green with a white top. It appears to be traveling at a high rate of speed, even though you feel certain the driver can see you. Suddenly, you see the car is swerving toward you and not slowing down. You quickly leap from the road back onto the sidewalk, with the car narrowly missing you. You find yourself shaking wildly, realizing you narrowly escaped being hit by the car. You look up and see that the car continues down the road, swerving from side to side. Can you see that car swerving down the road (5 seconds)? You now notice your left arm is stinging. You look down and see you have scraped your arm as you landed on the sidewalk. You feel hurt and confused and scared. Soon you again hear the sound of a car. This time you very carefully peek from around a tree to see what is coming. Now you see a black and white police car with its lights and siren on. You instantly feel relieved. Can you feel this relief (5 seconds)? You move out onto the road to wave the police car down. The car quickly slows, and soon you are face to face with a police officer. He is obviously overweight, balding, with a large black mustache. To your surprise, he sticks a gun in your face and asks, "Where did you stash the green car?" (5 seconds). You quickly grab the gun from the startled policeman and motion him from his car. Then you jump into the police car and speed off in search of the green car. You are very angry at both the policeman and the driver of the green car, and

wish to straighten out the confusion. As you drive down the road, you finally see the green car straddling the road so that traffic is stopped. Several cars are already in line, with their horns honking. Can you hear these horns (5 seconds)? The driver of the green car steps from his car. He is tall and thin, with very short hair. On his shirt is written "State Prison." You grab the gun, step from the car, and yell "Halt!" The driver of the green car quickly raises his hands and stops in his tracks. Your heart is racing, but you hold your ground. Very soon two police cars arrive on the scene. In one of the police cars is the policeman you met so unpleasantly earlier. He looks at you suspiciously, then glances at the driver of the green car. He walks over, retrieves his gun, and says, "Scram before the reporters get here" (5 seconds). You gratefully leave the scene, hoping to get lost again.

Now, open your eyes and rest for a while (1 minute). Now, close your eyes . . . be as alert as possible and image as I speak.

You are taking a walk, and suddenly you see tennis players volleying the ball back and forth. You can even hear the thud of the ball when it hits the racket. As you walk up to the tennis court, you continue to observe the match. There is a young man and a young woman playing, hitting the ball very ferociously back and forth. They seem to be very evenly matched as the volley extends for almost

one minute. You continue to watch them volley, closely observing the couple. The man is tall, very muscular with jet black hair and dark mustache. He's dressed in white shorts with a red stripe down the side, and a white V-neck teeshirt. His socks are white with two red horizontal stripes. His tennis shoes are white with red stripes on the side. The woman has long blonde hair with a very pretty face, reminding you of a model. She, too, is rather tall, although not as tall as her opponent. She is very muscular. You are amazed to see her leg muscles flex as she stops and starts in volleying the ball back and forth. She is wearing a blue tennis outfit. It consists of a one-piece skirt and top, the skirt being very short. She has on light blue tennis shoes which have very dark blue stripes on the side. Can you see them as they ferociously volley back and forth (5 seconds)? As you continue to watch them volley, the man finally misses a short volley, hitting the ball long on the opposite court. At this point, he turns and angrily throws his racket at the fence, very close to where you are standing. This startles you and you feel your heart race. Your rate of breathing increases as you recover from this scare. As the man walks over to the fence to pick up his racket, you can hear him mumbling something to himself, though you can't quite make out what he is saying. As he nears the fence, you yell, "Good volley!" to which he replies, "Yeh, good for her!" (5 seconds). He does not make eye contact

with you, and does not seem at all friendly at this time. He angrily grabs up his racket and stalks back over to the baseline where he stands glaring at his opponent with his hands on his hips. You watch as his opponent smiles slightly, though not saying anything. The man at this time suddenly breaks into a grin, and you hear him yell, "Good volley!" At this point you watch as the man gathers the balls and prepares to serve. He bounces the ball three times, as you hear the thud of each bounce. Can you hear the ball bounce (5 seconds)? You watch as the man makes a face and prepares to serve. He again bounces the ball three times. Again, the sound of the ball hitting the court reaches your ears. You watch as he throws the ball into the air and hits it with his racket quite violently. The ball seems to float as you watch it enter his opponent's court. Can you see the ball (5 seconds)? It appears to be good as his opponent comes up close to the net. It seems to take forever for the ball to get to her, but finally the two arrive together and she hits it very hard. You watch as the ball streaks to the opposite side of the court from where the man stands. You watch as the man sprints to reach the ball. He doesn't quite reach the ball as it bounds past him. You hear the woman loudly shout, "Game!" and watch as the man again throws his racket. The woman is running toward the net and then actually jumps over it to shake the man's hand. The man reluctantly shakes hands with a sour

expression on his face. Can you see the man (5 seconds)? He finally smiles and gives her a hug. He then walks over to pick up his racket which is near to you. Just as you are about to yell, "Good game!" he snaps, "Shut up!" You start walking away very rapidly, as you were beginning to be a little nervous.

Now, you can open your eyes, this session is over.

End of Session III

EVOCATIVE IMAGERY TRAINING: SESSION IV

Attention Please! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds). You are outside preparing to enter the basket of a gas balloon. The basket is constructed of a flimsy wood-like substance which seemingly has been woven together. You reach over and touch this surface with your fingers and then pull back and forth on it. It gives slightly but does feel fairly secure which is reassuring to you, as you are considering going up in this gas balloon. You look up above and observe the balloon. You see a large dark blue balloon which almost completely blocks your view of the sky from where you are standing. The blue of the balloon is much darker than the pale blue of the sky behind it. Can you see

this contrast between the dark blue of the balloon and the pale blue of the sky? The balloon is secured to the wooden basket by eight pieces of rope. You grab onto the rope with both hands and pull opposite ways to make certain that the rope is secure. As you pull, there is no give in the rope, which reassures you that the rope, like the basket, is secure. Can you feel this reassurance? The balloon is placed in an open field covered with green grass as far as you can see. There is a portable set of wooden stairs next to the balloon's basket so that you can climb into the balloon's basket. You walk over to the stairs feeling slightly nervous, but then go ahead and climb the stairs and jump into the basket. Suddenly, a bald-headed man with a dark black handlebar mustache, wearing no shirt and tight pants of purple satin, appears out of nowhere. To your astonishment, he is walking around the balloon cutting the ropes with a long knife. As you are frantically trying to climb back out of the basket, he looks at you, smiles widely, and cuts the last rope that holds the balloon to the ground. Immediately, you, the basket, and balloon soar straight up into the air. Can you feel the sense of rising into the air? Strangely enough, you look back down onto the ground and the man has disappeared. Now, you are rising higher and higher into the air. You look down below you and see miles and miles of green fields much as you just left. The sky continues to be pale blue with no clouds. The sun is shining

brightly. There is very little wind. You see a nozzle above your head at the base of the balloon which allows gas from the balloon to escape. You feel relieved knowing you will be able to lower the balloon if needed. As the balloon continues to rise and you are able to see more and more of the countryside, you actually begin to enjoy yourself. It is very peaceful up in the air by yourself in this gas balloon. Suddenly, you are astonished to see another balloon coming toward you. Unlike your balloon which has largely risen straight up, this balloon is approaching you at a fairly fast pace as if a strong wind is driving it. As it comes closer, you begin to hear the sound of an engine. You can now see that the balloon does have some sort of engine that is propelling it towards your balloon. Above the roar of the engine you can vaguely make out the sounds of some sort of music. Looking into the basket of the balloon, you see a young man and woman. Strangely enough, they do not seem to notice you. This surprises you, because obviously there are not that many balloons around in the sky. You can see the man is rather tall, with jet black hair and a black mustache. He seems not to be wearing a shirt. The woman also has jet black hair, though she has no mustache. You notice that the man and woman are dancing in the basket to music. At the same time, they have rather large bottles in their hands which they continue to bring to their mouths. As they come nearer and nearer, you suddenly fear that they

will run into you. They yell and wave and motion you to come into their balloon. Can you see this man and woman motioning to you? You feel very nervous at the prospect of attempting to jump from your balloon to their balloon and shake your head no to their request. At this point, the man and woman seem to become angry and, of all things, start throwing bottles at you and your balloon. You duck as one bottle narrowly misses your head. After several near misses, their balloon is steadily pulling away from yours, and their bottles can no longer reach you. You gratefully heave a sigh of relief and relax a little after being bombarded with bottles. As you look around, you realize you have come into heavy cloud cover. In just a few seconds you are completely surrounded by clouds. You can see almost nothing outside your basket except slight glimmers of sunshine occasionally. Soon, you hear another sort of engine, but you realize it is not a small engine, but a rather large engine. To your horror, you suddenly recognize the sound to be that of an airplane's engine. The sound of the airplane is getting louder and louder and louder. Finally, seemingly right below your basket, you hear a tremendous roar as a huge plane flies directly underneath your basket. As the plane passes by, great turbulence in the air sends you and your basket flying wildly through the air. You hang onto the side of your basket for dear life as you fear that you will fall out. After several wild moments, your basket begins to stabilize.

You look around and see that you are no longer in a heavy cloud cover, but are in pale blue sky with occasional clouds. Can you see the pale blue sky with a few clouds here and there? The sun continues to shine brightly. You look down below you and notice that the countryside has changed, for as far as you can see, it appears there is desert. Suddenly you hear a hissing sound. You look up above and then realize somehow your balloon has been torn. You begin to realize that your balloon is dropping fairly rapidly as a result of the escaping gas. As you look down below, you see the ground coming to meet you. You are very frightened. Can you feel this fright as your balloon drops more and more rapidly to the ground? Finally, your balloon hits the ground, which seems to be a very large sanddune. At impact, your basket splits open, and you fall out and roll down the sanddune. Finally, after you have stopped rolling, you realize that you are not injured, which of course greatly relieves you.

Now, open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak.

Once in the desert, you notice that it is very, very hot. Instantly, there are beads of perspiration that appear on your forehead, and rapidly your entire body is covered with this perspiration. Can you feel this perspiration? You look up above into the sky, and it seems all you can see

is the sun. The sun is monstrously large, and you can only see by squinting your eyes when looking up. You rapidly change the direction of your gaze to your surroundings. As far as you can see there is sand with a few cactus here and there. You look back over to your balloon and you see your basket is torn to shreds, and your balloon is almost entirely deflated. You become anxious as you realize you'll not be able to use your balloon to escape from this desert. As you sit there in the sand, you begin filling your hands with sand and letting the sand slide between your fingers. You do this again and again, feeling rather sorry for yourself and hopeless. Finally, you get to your feet and begin to walk. Again, you look up to the sun to attempt to determine some direction, but the sun seems to be everywhere--to fill the entire sky. You begin walking randomly in one direction, hoping that you will happen onto some sort of civilization. After a few steps you realize that your clothes are entirely drenched with perspiration. You are very hot and thirsty. After walking for seemingly hours, you reach the top of the sanddune. Looking down at the bottom, you see a body of clear blue water. With great excitement you begin to run toward the water. In your excitement you fall several times, as you are in such a great hurry to reach the water. Finally, you reach the water and dive in. Upon diving into this water, you fall headlong into more sand. As you spit sand out of your mouth, you

can see that the clear blue water was only a mirage. You are very worried now, as you are very, very tired, hot and thirsty. You continue walking. After walking several more minutes you see a clump of trees surrounded by green grass. Again, being very excited, you run toward this oasis. Upon reaching it you can feel the grass underneath your feet as you take off your shoes. You lean up against the trees and look up into them. You see the trees have some sort of fruit. Looking over across the oasis a few feet you see the same man and woman you had seen in the balloon earlier in the day. They do not seem to notice you, but they do have bottles of some sort of liquid which they are vigorously drinking. You quickly run over to where they are sitting and attempt to grab one of their bottles. As you reach for the bottle, it suddenly disappears. Looking around, you see the man and woman have disappeared. Also, the trees, the fruit, and the green grass have disappeared. You realize again, even in your confusion, that this has also been a mirage. Now you notice a different sensation--that your feet are burning. You had taken off your shoes earlier to experience the grass with your feet, and now your feet are in great pain. You spy your shoes several feet from you and stumble over to where they are lying. You sit down to put them on and quickly look at your feet. You can see that your feet are very red and blisters are beginning to form. Can you feel this burning sensation on your feet? You quickly begin

to slide your shoes back onto your feet. You stand up and begin walking, again feeling rather hopeless. Suddenly, you feel a hand on your shoulder vigorously shoving you. You are afraid to turn around for fear that it will simply be another mirage. Finally, you take the chance and turn around only to see your mother. She looks rather exasperated at you and is pointing toward a clock saying again and again, "Get up, it's time for school!" (5 seconds). With a great sense of relief, you can see the surroundings in your bedroom and now realize you have been dreaming. You hop out of bed in a flash and run to the kitchen, gulping down several glasses of water.

Now, you can open your eyes, this session is over.

End of Session IV

EVOCATIVE IMAGERY TRAINING: SESSION V

Now, I want each of you to sit up straight in your chair, with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now close your eyes and image as I speak (5 seconds).

As you peacefully sleep, your alarm rudely awakens you at 6:00. You quickly knock your alarm across the room to shut it off. To your dismay you see that as your alarm strikes the wall, it breaks into little pieces. You grumpily swing your feet out of the bed and shake your head,

trying to clear the cobwebs from it. You realize that you face another day of dreaded school. Can you feel this dread? As you rub the sleep from your eyes, you attempt to stand up and do so, but with some difficulty, almost falling back down on your bed. You stagger to the shower and turn on the water. As you climb into the shower, you are shocked to discover that you forgot to turn on the hot water as the cold water quickly wakes you. You rapidly jump out of the shower and turn the hot water on. After waiting a few seconds, you climb back into the shower. You are angered to find that this time the shower is far too hot as the water burns your skin. Again, you quickly jump out and this time take time to readjust the water and test it before climbing back in. Finally, after assuring the water is right for you, you climb into the shower. Gradually, you begin to feel both more awake and relaxed as the water soothes you. You proceed to shampoo your hair and to soap and rinse the rest of your body. Reluctantly, you finally turn the shower off, knowing that you are in a hurry to avoid being late for school. You run to your bedroom and rapidly begin to put your clothes on. With your clothes on, you run into the bathroom to dry your hair and then comb it. You look into the mirror and groan. Can you see your image in the mirror? After brushing your teeth, you run into the living room, pick up your books, and run out the door. You rush to your car and attempt to open the door, but the car door will not

budge. You realize that your door is locked and reach into your pocket for your keys. After frantically searching for your keys in either pocket, you realize that they are in the house. Knowing that you are already late, you frantically run back in the house and look for your keys. You look under some paper in the living room, then you run to your bedroom and look through all your clothes strewn across the floor. Finally, in a pair of pants you remember wearing last night, you find your keys. You run back out the door to your car, unlocking it. You turn the ignition and your car starts promptly. You say to yourself, "Finally, something is going right for me" (5 seconds). You shift your car into reverse and squeal out of the driveway. Once out in the street you look back to your driveway and see two small children that you must have narrowly missed in hurriedly backing from your driveway. You heave a sigh of relief, smile at the children sheepishly, and wave goodby. Can you see yourself waving? Again, you squeal out down the street. Fortunately, your school is not far from your home and you rapidly reach the school. As you pull into the parking lot, you are frustrated to see that there are no parking places. With some regret, you pull your car next to a yellow curb. Grabbing your books, you jump out of your car and lock it. You hurriedly run to open the door and run to your classroom. You realize the bell has already rung as there are no students milling in the hall.

As you realize this, you say to yourself, "Late again, what will my students think?" (5 seconds). As you open the door, you see your students obediently sitting at their desks, but with rather amused looks on their faces. As you walk into the class, they say in unison, "Good morning, teacher."

Now, open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak.

As you wake up in the morning, you realize that you are at a friend's farm. You had promised him that you would help him with the chores early in the morning, which brings a sinking feeling to your stomach, as you don't really care for farm chores. As you glance around the bedroom, you notice that this farm house is built very much like an old log cabin. Along with old furniture, your bedroom appears as if it could have existed a hundred years ago. As you look up, even the light fixture appears to be some sort of antique. The only give-away is the dark brown shag carpeting on the floor. As you get out of bed and put your feet on this shag carpeting, it feels very soft and springy on your feet. Can you feel the carpet on your feet? As you attempt to stand up from your bed, you fall back down on it, realizing that you remain half-asleep. You shake your head to arouse yourself and at that time first experience a headache you hadn't formerly noticed. You do attempt to stand up again and this time you are successful, though

your muscles feel stiff and sore. You painfully walk over to where your clothes are piled and slowly begin to dress. You startle as you hear your friend's alarm clock in the next room. Can you hear his alarm clock? Again, you experience dread in knowing you are soon to be out doing farm chores. You put your clothes on and walk out into the hall. There your friend awaits you. As you walk out the door to do the chores, you continue to experience a sinking feeling. Once outside, your friend turns to you and says, "Would you walk up to the barn and get a bale of hay for my horses?" (5 seconds). You reply, "Sure." As you begin walking to the barn, you suddenly experience a squishy-like feeling at your feet. You look down in horror to see that you have stepped in the wrong place. At that point, you begin to smell a rather unpleasant odor. Noting that these are your old shoes, you heave a sigh of relief, but are still not terribly pleased. You continue on toward the barn, kicking your feet as you walk, freeing the gooey material. You are now very careful where you walk. Soon, though, you begin to notice the trees on the trail to the barn. They are evergreens in red soil. Can you see this red soil? You also hear the birds chirping, cattle mooing, and horses neighing. Somehow, despite your anxious morning, you become more peaceful and tranquil. Can you feel this peaceful feeling? You are walking more slowly, continuing to experience the noises and sounds of the farm. Now, you speed up as you

see the barn in the distance and realize your friend is probably going to be impatient with you, which makes you feel under pressure. After another couple of steps, you are startled by your friend's voice yelling, "Where's that hay?" (5 seconds). Now, you are reaching the barn. You turn the handle of the door and walk inside. Instantly, the smell of fresh hay pervades your sense of smell. Can you smell the hay? You see the hay and walk over toward it. You casually reach down to pull a bale up by the baling wire. As you pull up, you are surprised to note that the bale does not budge. You also notice that the baling wire cuts into your fingers as you pull up. You let go, take a step back, and take a deep breath and approach the bale again, this time with two hands, each hand grabbing a strand of baling wire. You jerk the bale off the pile and stagger a few steps forward with it. At that point you drop the bale, amazed at how bad your fingers hurt. Can you feel your fingers hurt? You wonder to yourself, "Wouldn't it be easier to bring the horses to the hay?" (5 seconds). You decide, though, to carry the bale on to the house and with new determination reach down for the bale. As you lift it and begin walking, you continue to be amazed at either how heavy the bale is or how weak you are. Taking a few steps at a time and then dropping the bale on the ground, you continue to stagger back to the farm house. Soon you notice you are walking longer stretches without having to drop the

bale, and notice that now your fingers are numb. As you drop the bale and look at your fingers, you see deep red marks where the bale is cutting into your fingers. You flex your fingers several times trying to restore feeling. After doing this, you reach down for the bale again and lift up. You realize now that perhaps you were better off with your fingers numbed, as your fingers are aching even more now. You continue on with the bale, gritting your teeth and mumbling to yourself, "I hope he only needs one bale" (5 seconds). Finally, you see the farm house in the distance. You notice your friend sitting on the front porch in a swing, smoking a cigarette with a cup of coffee in his hand. You notice you begin to feel angry that your friend is goofing off while you have worked so hard. Can you feel this anger? At this time, you pick up a piece of dried manure and run toward your friend with revenge in mind.

Now, you can open your eyes, this session is over.

End of Session V

EVOCATIVE IMAGERY TRAINING: SESSION VI

Attention Please! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds).

You are with your friends at a lake cabin. The cabin is very nice, having all the modern conveniences. You feel very comfortable as you sit back in a very comfortable couch. You and your friends are having a good time laughing and joking, talking about what happened at school that day. As soon as the talking dies down, your friend who owns the cabin suggests that you go skiing. You feel slightly nervous about this as you have only skied a few times and took a few bad falls. You remember one time very vividly. You are skiing with a couple of buddies and they are going at the boat's top speed. You remember skimming over the water, seeming to just barely touch its surface. Soon, however, you enter into turbulent waters--waves created by a nearby passing boat. The skiing you experienced earlier quickly is transformed into rocky riding. You win the battle, avoiding the fall and continue on at a high rate of speed. You are becoming more and more self-confident. Can you feel this confidence? You decide to enter outside the wake as your friend makes a turn. As you go outside the wake, you experience the water as even more smooth, almost like glass. As your friends make the turn, you decide to go as far out as possible from the wake, leaning over as if to touch your shoulder to the water. You are beginning to feel your face very close to the water. You notice your friends in the boat are yelling and observing you very closely as you ski. Suddenly, your confidence is shattered as

you hit the water violently. Can you feel this shock? Your skis fall off in different directions as your body is pounded endlessly as you fall across the water. Finally, your fall comes to a halt. You feel shaken and sore, wondering if you have broken anything. As you experience your body, it seems that you will not be permanently injured. You do notice that it seems you swallowed some water and this tastes very bad. Can you taste the water? Also, it seems some water was forced up your nose. Additionally, you experience a throbbing headache. At this time, you notice your friends are circling back to pick up up. They are laughing, seemingly amused by your fall. Suddenly, you are jarred back to the present by one of your friends nudging you and saying, "Ready to hit the water?" (5 seconds). You groan inwardly, feeling how you last "hit" the water. You ask your friends, "Wouldn't you rather go in and get some dinner in town?" (5 seconds). Another friend replies, "We can eat dinner anytime" (5 seconds). As you and your friends leave the cabin, you step out into the wooded area that surrounds the cabin. You see the tall trees with their green foliage. Can you see the trees? You take a deep breath and smell the odors of nature. Below you can see the lake. You can hear a motor boat revving it's engine, and the voices of people laughing and talking float up to the cabin. As you and your friends begin the descent down the hill, you do seem to feel a bit more relaxed than

you were. You have largely forgotten the image of your falling so hard. As you continue walking down the hill, you listen to your friends as they discuss the lake. They seem excited and this sort of rubs off onto you. Then one of your friends says to you, "Hey, why are you so quiet?" (5 seconds). You reply, "Just getting psyched up for skiing" (5 seconds). This brave front somehow gives you even more courage, and you begin to feel better and better about the prospect of skiing. Soon, you and your friends reach the dock. As you enter to untie the boat, you smell the fumes of gas and oil that run the boat. After a moment, this makes you slightly dizzy and sick at your stomach. Can you feel this sickness? You are anxious to get the boat untied and out onto the water. Your friends, though, seem to be in no hurry as they horseplay, pushing, shoving, and laughing. You are hurrying, running around the boat, untying it at the mooring. You yell, "Hey, get the lead out!" (5 seconds), as you begin pushing the boat out. Your friends hurry to jump in the boat as you begin pushing it out.

Now, open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak.

Once out into the water, the owner begins to hook up the gas to the engine. After doing this, he walks up to the front of the boat and sits down and turns the key. The

engine purrs as he gives it a little gas. Can you hear the engine purr? Slowly the boat moves out of the dock area. Over to the right, you see other boaters and their docks. As you move out of the dock area, your friend accelerates the boat. You feel the wind on your forehead as the boat moves more swiftly over the water. Can you feel the wind on your forehead? Soon your friend slows the boat down to a gradual stop, turns around and says, "Who's first?" You quickly raise your hand and jump in the water, feeling relieved that you will at least get this over with. As you jump in the water, you are startled to find how cold it is. You had forgotten that it was early spring. The chill of the water numbs your body. Then, realizing you had forgotten a life jacket, you feel foolish and a bit panicked. A friend alertly throws you a jacket, which lands a few feet beyond your grasp. You gratefully swim over to it and fasten it. It seems you are becoming accustomed to the water or either very numb. Now, a friend throws you a ski. You yell back to the boat, "Two please." Another ski quickly comes skimming across the water towards you. Now, you attempt to fit the skis on your feet. You easily get the first one on, but then the second one is more difficult, as the first ski seems to get in your way. After about two minutes, you finally get both on and your friends pull the boat around so the ski rope is in your hands. You begin to feel a tugging on your arm. You hang on, though you

can't seem to get up out of the water. In fact, you cannot even see for the water that is spewing about your face. Suddenly, you lose your balance, but continue to hang onto the rope. You are thrown over forward and for some reason, continue to hang on to the rope and are pulled by the boat on your stomach for a few feet until you finally let go. As your friends circle around with the boat, you realize some water went up your nose and was swallowed. Can you feel the water up your nose? You are coughing violently as the boat pulls up to you. Your friends are laughing, seeming to think that it was pretty funny. Your friend yells, "Ready for another run?" (5 seconds). You nod your head yes. As the boat pulls around, you grab the rope and wait until the line is drawn taut. The roar of the boat is heard as you hang on tightly to the handles of the rope. You again feel your arms being pulled violently. Can you feel your arms being pulled? This time you do raise out of the water. At first you zig and zag, losing your balance. Then you maintain your balance, feeling at last like you will be able to stand up. You look ahead and see your friends yelling and clapping in the boat ahead. Feeling a bit cocky, you head toward the outside of the wake. Suddenly, remembering your last experience, you hesitate and begin to consider it may not be such a great idea. At this moment you suddenly lose your balance and fall very hard, your face hitting flush against the surface of the water.

Your skis fly off your feet as your body pounds into the water's surface. As you look up out of the water after slamming against it, you see the boat circling back around. Your friends are laughing and joking. The driver of the boat asks, "Who's next?" Two of your friends both indicate they wish to be next. Both jump out into the water at the same time, and thus it is decided they're to ski double. You and your friends throw skis to the skiers and circle back around as they busily put on their skis. As the rope is pulled taut and the skiers yell, "Ready," the roar of the engine is heard again. Can you hear the engine? This time, however, the acceleration is not as great and the boat seems to lack the power to pull the skiers up. Both skiers remain crouched, holding onto the rope very tightly, but it seems to be a losing battle as the boat cannot seem to gain momentum. Finally, one of the skiers falls over, with the boat greatly accelerating at the loss of this weight. The other skier quickly gets up and the driver of the boat circles back around to let him off where his co-skier went down. You see the skier in the water frantically waving his arms as if he is afraid the driver of the boat will not see him. Can you see the skier waving his arms frantically? However, the driver of the boat skillfully deposits the skier next to the other without coming close. The skier who first fell stays in the water as the second skier climbs into the boat. Again, the rope is pulled

taut. The engine roars and this time the skier is pulled out of the water easily. Your friends cheer as the skier waves one arm in triumph. You gratefully settle back for a more enjoyable boat ride. The moisture you acquired while skiing is almost entirely evaporated, but remains cool on your skin. This feels exhilirating to you and you really begin to enjoy the ride, especially in knowing you are through skiing for the day.

Now, you can open your eyes, this session is over.

End of Session VI.

EVOCATIVE IMAGERY TRAINING: SESSION VII

Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds).

You wake up and look around a room. It is sterile white except for a funny machine next to your bed on your left. This machine has all sorts of dials and knobs on it. There is a long strip of white paper protruding from it. You are initially puzzled, but then remember that you are the subject in a dream recall experiment. At that moment, the door opens and a man with a white coat enters the room. He has rather long black hair with a dark beard and mustache wearing wire rim glasses. Can you see this man? He greets

you with a cheery, "Good morning," and sits down beside you in a chair to the right of your bed. He then says to you, "We're finally through with you" (5 seconds). You remember how you have been awakened constantly throughout the past five nights whenever the machine showed you were dreaming. By this time you are physically exhausted. The man says, "Thank you and good luck" (5 seconds), and then throws several sheets of typewritten paper at you. "Those are your dreams" (5 seconds). You remember that when awakened in the night, you were asked to describe in detail your dreams while a medical assistant busily recorded them. These sheets of paper apparently were the dreams you had described to the personnel. As the man in the white coat busily walks out the door, you pick up the papers and begin to read. "You are riding an escalator. You look down the escalator and you see no end to the escalator. As you continue riding down the escalator, suddenly you enter into a cloud cover. In just a few moments the clouds are so dense you cannot see your hand in front of your face. Now, you become nervous. Off to your left you can now see lights flashing red, blue, green, and yellow; flashing off and on at different locations." Can you see these lights? "Soon, off to your right, you hear two voices arguing, though you cannot quite make out words. Continuing on down the escalator, you suddenly come out of the cloud cover and do see an end to the escalator. To your surprise, there stands a Santa Claus. He

his parachute down to the ground. As you fly, you can vaguely hear him yelling to you, though in some foreign tongue you do not recognize. As you approach the ground, you see what appears to be a prison and softly deposit him there on the grounds. As you fly away, you notice a sign outside what you thought was a prison reading, Beware--School Ahead." At this point you read,"Subject awakes."

Now you can open your eyes, this session is over.

End of Session VII

EVOCATIVE IMAGERY TRAINING: SESSION VIII

May I have your attention please. Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds).

Today, you continue to remain in the hospital where various doctors have performed dream research on you. Waking up today, you feel somewhat exhilarated over the interesting dream you read about yesterday. Today, you are eager to begin reviewing more of your dreams. The papers lie over to your left on a small stand. You reach over and pick up the papers and begin to read. "You are entering a dark tunnel. You are walking very slowly as you cannot see anything at all except darkness. You proceed very carefully

is standing there looking at you intently with his hands behind his back. You come closer and closer to him. You're apprehensive to know what he is holding behind his back." Can you feel this apprehension?" As you near the end of the escalator and begin to step off, Santa Claus pulls a book from behind his back. You anxiously grab the book and begin to look at the title. The title reads in big red letters, How to be a Good Kid. You look up at Santa quickly and he sternly says, 'I hope this helps you next year' (5 seconds), and then to your dismay disappears. Feeling quite disappointed, you look back at the book, and then angrily throw it as far away as possible." At this point you read, "Subject awakes." You set down the papers and feel some wonder and astonishment at your rather unusual dream.

Now, you can open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak.

Finding your dream interesting, you again pick up the papers and begin reading. "You are flying through the air much as you saw Superman do in his movie. You feel the friction of the air on your head and shoulders as you fly at a high rate of speed." Can you feel the friction of the air? "As you fly along, you feel very confident as if you could do anything. You look down below and see a mountainous region with tall green pine trees. Over to your right you notice you are being passed by a large jet. Looking

into one of the windows you see your best friend waving at you frantically as if to warn you of something." Can you see your best friend? "This worries you and you slow your flight down, letting the aircraft pass on by you and begin to look around the sky for anything that might be of danger. Suddenly, you hear another aircraft and then out of a cloud appears a small fighter jet which apparently is chasing the larger aircraft that just passed you. You then hear the sound of a gun rapidly firing and feel the impact of bullets on your chest, though they harmlessly bounce off." Can you feel the bullets bounce off your chest? "You then fly directly in front of the plane and grab its nose with one hand and stop it in mid-air. At this point, you see the pilot of the plane eject from his aircraft and begin free falling through the air. You heave his aircraft with all your might in the opposite direction it had been travelling, and then give chase to the pilot who had ejected. As you fly through the air, you easily catch up with him. Just as you reach him he pulls his parachute. He seems to fly back straight up into the air. This causes you to miss him and you come to a screeching halt in the air, and then begin flying back up to this pilot. As you reach him, you can easily see his face. He is a very pale, bald-headed man with a very huge nose protruding from his face." Can you see his face? "There is a distinct look of fear on his face which amuses you. You grab his parachute and rapidly fly with him attached to

with one hand attached alongside one wall of the tunnel. As you proceed forward, you come to what seems to be a dead end. After groping for several seconds, you realize that there is a small tunnel that you may crawl through to proceed. You stoop down to your hands and knees and begin to crawl through this tunnel." Can you feel yourself crawling? "You crawl for several feet and begin to get anxious as you still cannot see and do not know how long this tunnel extends. You begin to crawl faster in this tunnel. Soon, fortunately, you see some light at the end of the tunnel." Can you see this light? "Gratefully, you proceed on until you reach the source of this light at the end of the tunnel. As you look out, you see very beautiful countryside below you--hills, with a clear blue body of water and many, many green trees and grasses. There is a very steep drop off from the end of this tunnel, and you cannot see how to leave the tunnel and enter this new terrain. To the left, you notice there is a large green vine extending from a very high tree attached to the outside wall of the cave by a wire. You grab hold of the rope and pull it free from the wire holding onto it. You apprehensively leave your position at the end of the tunnel and fly off with the vine. As you begin your descent, you experience an empty feeling in your stomach. As you reach the bottom of the arc and then start up, you still hang onto the vine. You are very nervous as to when to release the vine. You look below you

and seemingly many feet below there is a huge body of clear blue-green water. As you reach the greatest height of your ascent on the rope, you let go, allowing yourself to fall to the water." Can you feel yourself falling? "As you begin to fall, you again begin experiencing a sinking feeling much as you felt when beginning to swing from the tunnel. You feel helpless as you continue your fall down to the water. Suddenly, a shaft of bright white light appears below you and essentially serves as a slide which you begin to ride diagonally instead of falling straight down to the water. As you continue to slide down this great shaft of white light, you begin to feel very energetic and excited. As you look down at the white light, it seems to gradually seep into your body, energizing it. Soon your body has a white glow to it as you continue to slide on this shaft of bright white light." Can you see this white glow? "Very soon the shaft of white light begins to be directed upward as you follow it along. You continue to be propelled along this white light and soon enter dense cloud cover. Once in this cloud cover, the shaft of white light disappears and you begin to experience a floating sensation in these clouds. You just seem to float among different shapes and sizes of clouds. Instead of feeling excited and energetic, you now begin to feel peaceful and serene as you float along through the clouds. One cloud has suddenly left the cover of the other clouds and is

propelling you along the clear blue sky. You look around and see a bright sun and the cloud soon begins to descend. Very soon a large white building comes into view. You continue riding your cloud." Can you feel yourself riding the cloud? "You see you are heading toward a second floor window which is open. Your cloud guides you through this window and into a very familiar room which suddenly you recognize as your hospital room. Your cloud softly deposits you on your bed at which time it seems to disappear into the air of your hospital room." At this point you read, "Patient awakes."

Now, open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak.

You begin to read your dreams again. "You are walking through a field of seemingly endless red poppies. In every direction you look, you see only red poppies. You walk through the poppies and begin to notice they seem to be getting taller and taller." Can you see these poppies? "As you continue walking you soon find they are even taller than your head so that all you can see is red poppies above you. Suddenly, you walk into a row of very tall thorn bushes. You must at this point divert your walk and walk along side of the thorny bushes for several feet with the poppies on the other side. As you continue walking, you notice the row of bushes is beginning to decrease in size. Also, the

red poppies on your other side are becoming smaller and smaller. Soon you enter into a field of green grass. There in the green grass about 50 yards from where you stand are a group of teenagers. You see baskets and blankets strewn across the ground, looking much like they are having a picnic. As you walk toward them, you notice they have some sort of military uniforms on. As you come closer and closer, one of the boys notices you and alerts the others in a seemingly frantic way. As you walk up, they all stand in a straight line at attention and salute you. At this time you look down at what you are wearing and you, too, have on a uniform. On your jacket there are many different sorts of medals and medalions, and out of some sort of instinct you salute these teenagers and then tell them, 'At ease.' Suddenly, the teenagers begin laughing and their military clothes mysteriously disappear to expose teeshirts and blue jeans. Can you see this happen? You look down at your clothes and you are also wearing blue jeans and teeshirt. The boy who had initially seen you is laughing very hard and says to you, 'Big shot General, huh?' (5 seconds). You feel embarrassed at this. Suddenly, you find yourself not in the field, but in the classroom. It is your student military class. At the front of the class there is a short stocky young man who apparently is the teacher. He is dressed in full military attire. He has small eyes, small nose, dark mustache and a seemingly very large mouth which he is using

to yell at the class." Can you see and hear this man? "You look around the class and see your same friends. They are all slouched in their chairs, many of them chewing gum and obviously not listening to the teacher. You notice that you are sitting at the front of the class, being attentive and again feel embarrassed as he continues to rant and rave seemingly at these others. You begin to slouch a little in your chair, pull a piece of gum from your pocket, and look out the window. Suddenly, the instructor notices you and begins to shake his finger at you. You laugh at him, get up from your chair, and walk back to your friends, collapsing on the floor in a fit of laughter. The others also find this very amusing and are laughing very hard. At this time, the instructor's face is very red and he continues to yell and shake his finger at you. You, though, feel much better." At this point you read, "Patient awakes."

Now, open your eyes, as this session is over.

End of Session VIII

EVOCATIVE IMAGERY TRAINING SESSION IX

Attention! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clapsed in your lap (5 seconds). I want you to be as awake and as alert as you can, but your eyes closed. Now, close your eyes and image as I speak (5 seconds).

You're bored in your hospital room and thus continue to read dreams. You pick up the papers and begin to read. "You are sitting at home watching TV. You are watching your favorite TV show and suddenly the weather man with a map appears on the screen. He seems very excited and is pointing here and there with a stick at the map. At the bottom of the screen you read, 'Tornado Warning.'" Can you see the words, "Tornado Warning," printed at the bottom of the TV screen? "As you sit there watching TV you are slightly worried, but not too much as tornado warnings are very frequent. Suddenly, before your very eyes a wall in your home splits open and you are picked up by a tornado. This tornado has you swirling round and round and round." Can you feel this? "You are very confused as you have no idea where you are going. You just continue to go round and round and round at a very high rate of speed. You are contained in the tornado for what seems like just a few seconds and then find yourself deposited in the top of a very tall tree. It is some kind of a fir tree and as you look down at the ground you are very scared as it is a very tall tree. Also, you are relieved as you realize you narrowly escaped death." Can you feel this relief? "You begin to slowly climb down the tree. This is very uncomfortable as the fir tree is very itchy and scratchy on the skin." Can you feel this on your skin? "Finally, you reach the lowest branch, but are still several feet from the ground. You grab hold of the

lowest branch with your hands and let go, falling downward toward the ground. It seems like you will never stop falling. Finally, you hit the ground very hard." Can you feel yourself hit the ground? "After you hit, you roll a few feet on your side. Being slightly confused after your fall, you very carefully get up on your hands and knees and then stand up on your feet. It seems like nothing is broken or injured which relieves you. As you are standing there, to your great surprise up walks the weatherman that you regularly watch on TV and who had warned you of the tornado. He still has his long stick which he was pointing at the map and at this time pokes you in the chest with it saying, 'Didn't I warn you?' (5 seconds). You nod your head yes, feeling slightly embarrassed, but also totally amazed that the weather man is here in the woods. Suddenly, your favorite newscaster and sportscaster appear, shake your hand and motion you to follow them. As you begin following them on a trail through the heavily wooded area, you begin to notice that there are cameras submerged in the woods. Each time you see a camera you stop and smile and wave. Finally, after several cameras and waving, the weatherman grabs you by the arms and says, 'Hurry up.' You are starting to get angry at the weatherman about his superior attitude, but do not say anything. Finally, you, the weatherman, the newsman, and the sportscaster reach a clearing where there is a helicopter with its blade whirling round and round. You

climb into the helicopter with the three others and to your amazement find yourself in the driver's seat with no other driver visible. The weatherman abruptly says, 'Well, let's go' (5 seconds). Out of fear that he will rap you with his stick, you decide you will attempt to take the helicopter off the ground, though this obviously makes you quite apprehensive. You see a nice big lever which looks like it must do something and pull it back. Sure enough, you feel the helicopter begin to lift off the ground." Can you feel yourself rise with the helicopter? "To your amazement, the helicopter is flying. You are very unsure which button and levers to push, but seem to push the right ones as the helicopter flies through the sky at a high rate of speed. You are almost beginning to enjoy yourself even though you don't know what you are doing. You notice the sky around you is dark with no hint of sunshine. Soon the weatherman is tapping on the windshield with his stick and you look ahead and see another tornado seeming to come right toward the helicopter. You begin pulling levers and pushing buttons, but cannot seem to avoid the path of the tornado as it comes closer and closer." Can you see the tornado coming closer and closer to the helicopter? "In a few seconds, the tornado does reach the helicopter, and again you begin to swirl round and round, but this time inside the helicopter with the three TV personnel. The weatherman is very scared and angry and continually whacks

you over the head with a stick. The newsman is busily writing notes on a pad and the sportscaster is only reading 'Sports Illustrated.' The weatherman begins to fight you for the controls of the helicopter. During this fight, he accidentally pushes you out of the helicopter, and you begin falling to the earth. As you are falling, you look up above and see the tornado and the helicopter swirling around inside the tornado. As you look down and see the earth rapidly approaching, you also notice six firemen with a net there to catch you. This greatly relieves you." Can you feel this relief? "As you hit the net, you feel yourself sink down a few feet, back up into the air, and then finally back down to the net. You climb off the net and the firemen are shaking your hand. You look over to your right and see a large crowd of people along with TV cameras. Then you see the helicopter land and the three news personnel walk over to you. You run over to the weatherman and grab his stick and begin to beat him over the head with it." The paper then reads, "Patient awakes."

Now, open your eyes and rest for a little while (1 minute). Now . . . close your eyes . . . be as alert as possible and image as I speak. You begin to read your dreams again. "It is 6:00 a.m. in the morning and you are busy at your butcher shop cutting up different sorts of meats. You are working very hard and perspiration is pouring from your forehead. At 8:00, a young lady comes in with long blonde

hair, a blue dress and white blouse, and matching blue shoes. She has a very stern look on her face though it cannot disguise her petite features." Can you see this young lady? "She is very displeased as her order is not prepared. She spits on the glass counter with disgust and then walks out slamming the glass door. After working two more hours, it is time for you to leave work and go to your second job. You take off your white apron, wash your hands, and walk out the glass door. As you run outside, it is very bright and the day is warm." Can you feel the warmth? "You walk down the sidewalk and soon reach your car, a silver Datsun 280ZX. You open the door and sit down in the car, turn the ignition, hearing the engine start immediately. You shift into reverse and back out into the parking lot. You then squeal the tires as you head out toward a main street. As you enter the main street, you enjoy the smooth ride of your 280ZX. In front of you, you see an old yellow Volkswagen which you pass very rapidly as you accelerate." Can you see yourself passing this car? "You feel a sense of exhilaration as you zoom past the yellow Volkswagen. Soon you are coming to your second place of employment, a large brick building. You pull your 280ZX into the parking lot and step out and walk up to a glass door. You open the glass door and walk into a green corridor with a rather odd smell. You walk down the corridor for several yards and then enter a wooden door to your right. There you spy your

locker and begin to discard your clothes. You throw your clothes in a locker and put on a green shirt and pants and then walk over to a sink and wash your hands very well. You then walk out the door to the locker room to the middle of the hall with your hands held high." Can you see yourself with hands held high? "At the first door on the left, you turn right and there is a hospital operating room. There are three nurses dressed in green uniforms with white masks scurrying around. One trots up to you and fits gloves on your hands while another ties a gown around you and fits a mask over your nose. You realize now your second job is as a surgeon." You then read, "Patient awakes."

Now, you can open your eyes, this session is over.

End of Session IX

EVOCATIVE IMAGERY TRAINING: SESSION X

May I have your attention please! Now, I want each of you to sit up straight in your chairs with your feet flat on the floor and your hands clasped in your lap (5 seconds). I want you to be as awake and as alert as you can, but with your eyes closed. Now, close your eyes and image as I speak (5 seconds).

You continue to read your dreams. "You are walking down a long hall. Every few feet there is a door, the doors alternating left-right, left-right. As you walk past the first door, you jiggle the handle to the door and can feel

that it is locked." Can you feel the handle? "You walk a few feet and jiggle the handle of the door on your right. This time the handle turns and you are able to open the door. As you open the door, you see a rather large room. There are four men sitting at a card table. As you enter the room, they all look up very quickly and anxiously. All four men are old, rather balding, and overweight. The man nearest you has a dark mustache which contrasts with his few gray hairs." Can you see this dark mustache? "He appears to be dealing and turns around and looks annoyed at you as if you were interrupting something. You feel embarrassed as if you are intruding and quickly close the door. You walk on a few more feet and attempt to enter the door on your left. This door opens easily as the last one did. Here in this room you see two teenagers, a boy and a girl, embracing and kissing. The boy has short black hair, blue eyes, and a dark complexion. He is wearing a white teeshirt and blue jeans with tennis shoes. The girl has long blonde hair, very fair complexion, with small attractive features and blue eyes. She is wearing a long formal of blue and white. As you enter the room, they, like the card players, look quickly and act as if you are intruding. You feel embarrassed and slightly jealous, and close the door to this room." Can you feel this embarrassment and jealousy? "You begin walking past doors and after several, you again try a door. You open the door and see an old lady with gray

hair tied in a bun, granny glasses, and a long gray skirt sitting in a rocking chair. She is knitting some sort of blue-green sweater. She, also, looks surprised and annoyed as you enter the room. To your surprise she throws down the blue-green sweater she is knitting and starts running at you with her knitting needle poised up in the air ready to strike you. You very quickly close the door and narrowly miss her knitting needle as she swings it through the air. You continue walking down the hall past several other doors and come to a door with your name on it. This surprises you greatly. You open the door and to your dismay you sit behind the desk busily writing." Can you see yourself? "This person behind the desk appearing to be you also looks annoyed and surprised. You are terribly confused about this split personality, and are afraid to leave the room for fear you might lose part of your personality. This other person then says to you, 'Can't you see I'm doing my homework?' (5 seconds). You are now even more confused, as this does not sound like any part of your personality you have ever known about. Then, painfully remembering your last report card, you quickly walk over to this person and sit down, somehow becoming one with this other identity. You proceed to busily finish your homework." At this point you read "Patient awakes."

Now, open your eyes and rest for a little while (1 minute).

Now . . . close your eyes . . . be as alert as possible and image as I speak. You feel yourself rocking back and forth in an old wooden porch swing that faces a dense forest about thirty yards away. Between you and the forest is a bright, blue-green river flowing past. Can you see this blue-green river? You are feeling bored just sitting, swinging back and forth. You are quite curious about what is across the river in the forest. You decide to swim the river, and walk down to it to dive in. As you dive into the water, you experience a deep chill, as the water is very cold. You attempt to swim rapidly but it seems to take forever to cross the river. Finally, reaching the other side, you climb out, and walk slowly to the edge of the forest. As you enter the forest, it suddenly becomes dark due to the heavy growth. All you can see is dark green vegetation. It is somehow relaxing to you. Walking forward, you suddenly trip over an unseen vine. Surprisingly, you hear laughter as you pick yourself up. Can you hear this laughter? You look around to see where the laughter is coming from, but cannot see anyone. Continuing to walk through the forest, you again hear laughter. You walk quickly in the direction of the laughter, and enter a clearing. The bright sun blinds you for a few seconds, but as your eyes adjust, you see the coals of a fire. You walk over to the fire, and throw dirt on the coals to make sure the fire is out. You then quickly hurry from the

clearing back toward the river. You run through the forest as fast as you can, but the vegetation is so thick that you continually trip as you go. You hear footsteps behind you and the same laughter, which frightens you. As you reach the edge of the clearing, you feel totally exhausted. Can you feel this exhaustion? You see the blue-green water, and make a dive for the water. As you attempt to swim, you find that there is now a very strong current that pulls you downstream. Your arm muscles begin to ache as you strain to fight the current to cross the river. As hard as you try, you continue to be swept down the river by the current. You finally decide to turn around and slowly swim back toward the bank. You soon see a tree overhanging the river and grab onto this tree. Can you feel yourself hanging onto this tree? You pull yourself over to the bank with this tree and climb from the water. You are relieved to be out of the fast current of the river, but are nervous about entering the woods again. Suddenly, you hear laughter again. A smell of food also reaches you. All nervousness leaves you as you realize how hungry you are. You quickly walk into the forest looking for food. The smell of food reminds you of steak and this greatly excites you. Soon you reach a clearing, and there your classmates are cooking marshmallows instead of steaks. At this point, you awake, realizing this must be a very bad dream.

Now, open your eyes, this session is over.

End of Session X

RECEPTIVE IMAGERY TRAINING: SESSION I

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, exhale . . . inhale, exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw and face. Relax all your muscles as much as possible without losing your balance (10 seconds). Now that you are all relaxed, I want you to imagine a large white screen in front of you, such as you have seen at the movies (5 seconds). As you begin to examine the screen, you may begin to see pictures, such as a young lady waving to her boyfriend as he drives

up (10 seconds). Along with these pictures, you may also hear sounds, such as the boyfriend's car (5 seconds). Your arm may feel differently as you observe the girl wave at her boyfriend (5 seconds). There also may be smells, tastes, and touching sensations in these pictures you see (5 seconds). You watch as the boyfriend climbs from the car to embrace the young lady (15 seconds). Pictures may be still, they may be moving very slowly, or they may be rapidly changing (5 seconds). The pictures may be of bright color or they may be pale and of dull coloration, such as black and white. As you continue to observe the screen and the images on the screen, continue to allow yourself to relax. Allow the images to come and go. Don't attempt to force or hold onto a image--just allow one image after another with no effort necessary on your part except to observe. Now, continue to relax and observe the screen and images that come across it (15 seconds). Now, I want you to remember what you have seen, heard, tasted, felt and smelled. Attempt to recall the images that came to mind (30 seconds). Now that you have recalled your images, return to the screen. Continue to relax, and again observe the screen.

Now, I want you to imagine what your ideal vacation would be like. Where would you be (10 seconds)? Colorado, the Bahamas, New York City (10 seconds)? What's the countryside like (10 seconds)? Are there mountains or an

ocean (10 seconds)? What's the climate like (10 seconds)? Warm or cold (10 seconds)? Whom are you with (10 seconds)? Perhaps your best friend or a friend of the opposite sex (10 seconds)?

Remember, just let the images or pictures flow on the screen. Continue to observe your vacation (30 seconds). Are you having fun (5 seconds)? There also may be smells, such as that of the ocean (5 seconds). You may have feelings of excitement or awe in such a wonderful place (5 seconds). You may taste exotic foods at local restaurants (5 seconds). Continue to observe your vacation (30 seconds).

Now, I want you to remember your vacation. What you have seen, heard, tasted, felt, and smelled. Attempt to recall the images that came to mind (30 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1 and as I count down, you will begin to become increasingly alert. At any time you may open your eyes--10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session I

RECEPTIVE IMAGERY TRAINING: SESSION II

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now , your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds). Now that you are all relaxed, I again want you to imagine a large white screen in front of you (5 seconds). Can you image the screen (5 seconds)? As I talk, I'll describe different scenes which you may see on the screen. Much of what you see will probably come from your imagination, though. As you see these

pictures, just allow them to come and go--don't attempt to force or hold onto an image or picture. Just sit back, relax and observe. Along with the pictures, there may be other images of sounds, smells, tastes, feelings, movements, and touching sensations.

Now, as you continue to be more and more relaxed, observe the white screen. On it I want you to imagine or image that you are out walking in the woods (10 seconds). Look around and see what is there. What kind of trees do you see? Do you see perhaps tall pine trees (10 seconds)? Do you see any other types of trees (10 seconds)? How many trees are there? Are they thick (10 seconds)? Just watch the screen and observe whatever comes across it (20 seconds). Is there thick green grass (10 seconds)? Are there any flowers (10 seconds)? What kind of weather is there? Is the sun out (10 seconds)? Are there clouds in the sky (10 seconds)? Do you hear any sounds, such as those of animals? What else do you see in the woods (10 second pause)? Continue to observe the white screen as you walk along in the woods (30 seconds).

Now, I want you to remember what you have seen in the woods as you continue to relax. Review the experience you have just had (30 seconds).

Now, continue to relax. I want you to return to the big white screen. Remember, as I talk, just let the pictures flow across the screen. Don't try to force or hold onto an image.

I want you to imagine or image you are walking down a city street (10 seconds). Is the street busy or are you alone (10 seconds)? Are there new buildings or old buildings (10 seconds)? Can you hear any sounds, such as car horns or people talking? Just observe the big white screen as you walk down the street. What else do you see (30 seconds)? What have you been imaging? What do you see as you walk down the street (20 seconds)? Are you getting tired as you walk (10 seconds)? Are your feet hurting (10 seconds)? What's the weather like? Is it raining and cold, or is it sunny and warm (10 seconds)? Have you seen anyone you would like to meet (20 seconds)? If you did, how did you feel (20 seconds)? Now, just continue to observe the screen as you walk down this street (30 seconds).

Now, I want you to remember what you have imaged as you walked down the street. Review what flashed across the screen (30 seconds). Now, continue to be very relaxed, and observe the big white screen. I want you to imagine what your ideal and most comfortable house would be like. What would it look like inside (10 seconds)? What kind of furniture would it have (10 seconds)? Remember, anything is possible in your mind's eye--there are no money limits here. What color would the furniture be (10 seconds)? Does some of it float in the air (10 seconds)? What color are the walls (10 seconds)? Are there plants (10 seconds)? Remember, anything is possible. Let your mind create the

the best possible house. Move outside and see where this house would be. What kind of landscape is there (20 seconds)? What does it look like on the outside (10 seconds)? Remember, just let the images flow to your mental screen. If they are a little fuzzy, try to make them a little clearer but don't force the images. Now, continue to observe the screen as you view your ideal house (30 seconds).

Now, I want you to attempt to recall what you have just imaged as you sat there relaxed in your chair. Continue to relax and remember what you have seen, heard, tasted, smelled, and felt (60 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1 and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session II.

RECEPTIVE IMAGERY TRAINING: SESSION III

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow deep breath (5 seconds). Now, take another one. Exhale slowly.

Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

Continue to relax (10 seconds). Now, I want you to image the big white screen (5 seconds). On the screen, imagine or image you are entering a party a friend is having. Your friend is at the door to greet you. Who is it (10 seconds)? After talking briefly to your friend, you enter the party. Who is the first person you see (10 seconds)? Soon you see many others in a rather large living room where a stereo is playing loudly. What music is playing (30 seconds)? What people do you see? Are they familiar faces or strangers (20 seconds)? Are you mingling easily or are you shy (20 seconds)? Have you met anyone

interesting (30 seconds)? Are you enjoying yourself (20 seconds)? Just watch the screen as you attend the party (40 seconds).

Now, as you continue to relax, review what you experienced at the party (30 seconds).

Now, return to the white screen. Continue to relax. I want you to image you are a small child again. How old are you (10 seconds)? Where are you (20 seconds)? Who are you with your parents, brothers, sisters, or friends (30 seconds)? Are you happy (20 seconds)? Is there any special event that is particularly memorable (30 seconds)? Just relax and watch the screen as you relive your childhood (60 seconds). As you continue to relax, review what you have imaged from your childhood (30 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1 and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session III

RECEPTIVE IMAGERY TRAINING: SESSION IV

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds). Just relax all these muscles (10 seconds). Now, be aware of your breathing (10 seconds). Take slow, deep breaths (5 seconds). Inhale . . , Exhale . . . Inhale . . . Exhale . . . Continue to be aware of your breathing (10 seconds).

Now, you may see a big white screen, much as you have seen at the movies. On this screen, I would like you to image you are scuba diving underwater in clear, blue ocean water. Just watch the screen as you stay underwater (20 seconds). Do you see any brightly colored fish (20 seconds)? Are there any plants (10 seconds)? What does the bottom look like (10 seconds)? How does your body feel--is it light (20 seconds)? Just continue to watch the screen as you dive (60 seconds).

Now, I want you, as you continue to relax, to review your scuba diving expedition. What did you see, hear, taste, smell, touch and feel (20 seconds)?

Now, you may return to the screen if you wish. Continue to relax. Just relax (10 seconds). I want you to imagine or image you have just jumped from a plane with a parachute on your back (10 seconds). What does it feel like to fall through the air (40 seconds)? What do you see below you (30 seconds)? Now, I want you to open the chute. How does that feel (10 seconds)? How does it feel as you lazily float to the ground (40 seconds)? Now, as you continue to relax, review your flight through the air. Can you remember it (20 seconds)?

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1 and as I count down, you will begin to become increasingly alert. At any time you

may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session IV

RECEPTIVE IMAGERY TRAINING: SESSION V

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds, your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

Just relax all these muscles. Now, I want you to imagine or image yourself in four years. What will you look like (10 seconds)? Where will you be (10 seconds)? Will you be married (10 seconds)? Will you be working (10 seconds)? Just observe as images of your future pass before you (40 seconds). Just continue to observe (30 seconds).

Now, continuing to relax, I want you to recall what you have just imaged for yourself in four years. Were there any surprises (30 seconds)?

Now, I'm going to present another situation for you to image. Remember, just passively watch as pictures or images pass before you. Don't attempt to control these images, just let them flow. You should continue to be very relaxed. Now, I want you to image where you would most like to be right at this moment. Here in this room (5 seconds)? Out at the lake (10 seconds)? In a car (10 seconds)? What are you doing at this place (10 seconds)? Who are you with (10 seconds)? Just observe the pictures or images as you image where you'd most like to be right now (50 seconds). Just continue to observe (30 seconds).

Now, I'd like you to review what you have imaged about this most favorite place. Was there anything really exciting (30 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am

going to count down from 10 to 1, and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session V

RECEPTIVE IMAGERY TRAINING: SESSION VI

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

I would like you to image yourself on a Saturday morning with no job or school to worry about. If you could do anything you wanted to, what would you be doing? Where would you be? Who would you be with? Just observe the screen as images of your ideal Saturday morning come across it (60 seconds). Are you enjoying yourself? Continue to observe your ideal Saturday morning (30 seconds).

Now, continuing to relax, I want you to recall what you have just imaged (30 seconds).

I would like you to image a blind date you have just met, a very nice date, just right for you. What does the person look like? What does this person say to you? Where are you? Just observe as you image this very nice blind date (60 seconds).

Now, as you continue to relax, recall your ideal blind date (40 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1 and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session VI

RECEPTIVE IMAGERY TRAINING: SESSION VII

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath (5 seconds). Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

I want you to image your last day of high school. How do you feel (20 seconds)? Happy or sad (10 seconds)? What are you doing (20 seconds)? Do you have any regrets (10 seconds)? Just observe passively as you watch your last day of school (90 seconds). Continue to observe your

last day of high school. Do any old memories come back (90 seconds)?

Now, as you continue to relax, review your last day of school--what did you image (30 seconds)?

I want you to image how you would really like to be--your best possible self. How do you look (30 seconds)? How do you feel and act (20 seconds)? Just sit back and watch your best possible self (90 seconds).

Continue to observe your best possible self. What are you doing (90 seconds)?

Now, as you continue to relax, review your images of your best possible self. What were you like (30 seconds)?

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1, and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

RECEPTIVE IMAGERY TRAINING: SESSION VIII

I would like for you to get comfortable in your chair, Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath. Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way

until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds, your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs, and again relax them (5 seconds). Now, return to your arms and relax them. Now, your hips (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

Now, image you are riding a magic carpet (20 seconds). How does it feel to ride through the air on a magic carpet (30 seconds)? What do you see as you look below (20 seconds). What do you see in the sky as you fly along (30 seconds)? Just relax and image as you fly on a magic carpet (60 seconds).

Now, review your ride on the magic carpet. What did you see, hear, and feel (60 seconds)?

Now, I want you to image you are floating on a raft in a swimming pool (10 seconds). How does it feel to float (20 seconds)? With your eyes closed, does the bright sun make you see different colors (10 seconds)? If so, just

observe these colors (60 seconds). Continue to image you are floating. What do you see, feel, and hear? Just relax and image you are floating in the bright sun with your eyes closed (60 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1, and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session VIII

RECEPTIVE IMAGERY TRAINING: SESSION IX

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath. Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your

neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

Now, just be aware of any images that pass before you. Let the images flow by (60 seconds). What are you imaging (10 seconds)? Continue to passively observe whatever images come to you (90 seconds). Relax even further, but don't lose the images that you are experiencing (90 seconds). Continue to receive images (60 seconds).

Now, review what you have imaged (60 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1, and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session IX

RECEPTIVE IMAGERY TRAINING: SESSION X

I would like for you to get comfortable in your chair. Arrange your body so that you feel relaxed. Go ahead and close your eyes and continue to relax. Take a slow, deep breath. Now, take another one. Exhale slowly. Inhale, Exhale . . . Inhale, Exhale. Continue breathing this way until you feel more and more relaxed (15 seconds). Now, pay attention to your feet and legs. Relax them (5 seconds). They may even begin feeling heavy. Now, relax your arms in the same way. They are becoming very, very relaxed and heavy (5 seconds). Now, feel your hips (5 seconds), your stomach (5 seconds), your back (5 seconds), and chest (5 seconds). Relax these. Now, relax the muscles of your neck (5 seconds), jaw (5 seconds), and face (5 seconds). Now, return to your feet and legs and again relax them (5 seconds), back (5 seconds), and chest (5 seconds)--relax. Relax again your neck, jaw, and face. Relax all your muscles as much as possible without losing your balance (5 seconds).

Now, just be aware of any images that pass before you. Let the images flow by (60 seconds). What are you imaging (10 seconds)? Continue to passively observe whatever images come to you (90 seconds). Relax even further, but don't lose the images that you are experiencing (90 seconds). Continue to receive images (60 seconds).

Now, review what you have imaged (60 seconds).

Now, I want you to begin to wake up. You have been very relaxed, but now it is time to be fully awake. I am going to count down from 10 to 1, and as I count down, you will begin to become increasingly alert. At any time you may open your eyes. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Now, your eyes should be open and you should be fully attentive and alert to whatever responsibilities you entertain today.

End of Session X

VITA

Larry D. Vaught

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE EFFECTS OF EVOCATIVE IMAGERY TRAINING AND RECEPTIVE IMAGERY TRAINING ON MEASURES OF CREATIVITY, IMAGERY VIVIDNESS, AND IMAGERY CONTROL IN HIGH SCHOOL STUDENTS

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Tulsa, Oklahoma, April 8, 1952, the son of Mr. and Mrs. Donald G. Vaught.

Education: Graduated from Muskogee Central High School, Muskogee, Oklahoma, in May, 1970; received Bachelor of Science degree in Psychology from Oklahoma State University in 1974; enrolled in doctoral program at North Texas State University, 1974; received Master of Science in Student Personnel and Guidance from Oklahoma State University in 1976; completed requirements for the Doctor of Philosophy degree at Oklahoma State University in May, 1983.

Professional Experience: Graduate teaching assistant, Applied Behavioral Studies in Education, Oklahoma State University, 1976-78; School Psychology Intern, Bi-State Mental Health Foundation, 1978-79; Psychologist, Muskogee County Guidance Center, 1980; Clinic Director/Psychologist, Wagoner County Guidance Center, 1980-present.